AFRICAN STUDIES
(Formerly Bantu Studies)
VOLUME 17, No. 2, 1958

THE TONEMES OF XHOSA[1]

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SYNOPSIS

All gliding and level tones in Xhosa are members of three pitch phonemes (tonemes). Phonemes of prosody are not distinctive per se to the same extent as segmental phonemes, and few Xhosa tones can be identified tonemically when examined out of context. Even when taken in context the tonemic interpretation of Xhosa tones depends heavily upon the recognition of certain features present in the speech continuum which have a raising or lowering effect, or distort the shapes of tonemic norms. In this connection the recognition of the "tonal step" is vital because it is only within this unit that pitch contrasts are maintained. At the morphological level tonemes function within a system of tonal morphemes which can be analysed and described apart from that involving segmental morphemes.

A. Introduction

1. Despite similarities in approach and technique in interpreting and describing both segmental and suprasegmental phonemes, the latter are unique in many respects and present problems not encountered when handling segmental phonemes. The most important of these undoubtedly stem from the fact that suprasegmental phonemes bear no absolute acoustic features which ensure their recognition in isolation.[2] It is only within patterns of contrasting pitches, stresses or vowel quantities that any recognition of these prosodic features as phonemes is possible. In the description of the allophones of segmental phonemes, attention is focussed largely upon their phonetic shape (correlated, of course, with their distribution), but, with regard to suprasegmental phonemes where it is usually gradation alone which distinguishes one allotone from another, description of this kind is of far less value. On the other hand, the nature of environmental influences which produce allophones within segmental phonemes, is seldom a feature of importance in their description.

It is our contention, however, based upon experience in Xhosa, that with phonemes of pitch (tonemes[3]), if not all suprasegmental phonemes, allophones are best accounted for by describing the nature and effects of conditioning factors present in various environments.[4] Due to the absence of any absolute quality, a differentiation between a "tonemic norm" and other allotonic variations is often distinctly arbitrary. The keen ear in recognizing more gradations of tone than one less keen, may seek to recognize more allotones. It is possible, furthermore, and even common in quick speech, for an allotone of one toneme to be tonetically identical with an allotone of another toneme within a single

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[1]Material for this paper was gathered during the period 1955-57 from many Xhosa speakers from the Grahamstown, Graaf Reinet, Kir gwilliamstown and Umtata districts. Their assistance, in particular that of Messrs T. M. Mrwetyana, B.A., R. M. Sobukwe, B.A.Hons., and D. Hashe, is gratefully acknowledged. This research project was aided by a grant from the National Council for Social Research.

[2]To a limited extent, contour tonemes of specific shapes have absolute quality, but this may be of little real significance if, for example, two contour tonemes of similar shape exist, the one at a higher level than the other.

[3]In this paper "toneme" refers only to a phoneme of pitch.

[4]While it is not always possible to define the precise nature of environmental influences which produce allophones of segmental phonemes, it would seem that allotones can usually be accounted for in terms of such obvious processes as tonal assimilation, consonantal influence, etc.

utterance. In this paper, therefore, discussion with regard to the allotonic content of tonemes is centred upon the nature of environmental features which condition allotones, rather than on tonetic description of the allotones themselves.

In the speech of a single individual, a toneme can be realized at pitch levels widely separated within the speaker's pitch range, depending on factors such as the emotional background, intonation level or contour, etc. It is, however, the overall pattern as a whole which is affected by factors of this nature, the contrasts between tonemes being maintained within the pattern. Such changes in "key" are tonemically entirely non-significant. It is also true, however, that even within a single breath-group a "high" toneme near the end may be realized at the same pitch level as that of a "low" toneme near the beginning. It is clear, therefore, that there is some smaller unit within which significant pitch contrasts are maintained. In Xhosa this unit is the "tonal step" which (apart from a few accountable exceptions) always contains at least one high and one low toneme. (The phenomenon of tonal steps is discussed at §§ 14-18.)

Apart from factors producing changes in "key", it is possible to identify within a sequence of tonemes allotonic variations associated with specific points in the segmental and suprasegmental environment. At such points conditioning influences are found which operate regularly and uniformly, forcing tones higher or lower, or producing glides or contour tones in place of level tones. It is these influences which produce allotones within tonemes and to describe them fully is to provide an adequate account of the content of all tonemes. The recognition of conditioning influences and their nature is a vital stage in tonemic interpretation.

In the analysis of segmental and suprasegmental phonemes similarities in procedure and premise obviously exist, but it follows from previous discussion that techniques applied in segmental phoneme analysis do not necessarily have the same validity in the field of tonemic analysis. Facts relating to "complementary distribution" have, of course, relevance in both fields, but "phonetic similarity"[1] has little practical application to sound units which lack absolute quality. The recognition of conditioning factors and an understanding of the nature of the influence which they exert, provide an example of a procedure which has real value in one field but little value in the other. An example from Xhosa tonemics illustrates this point.

A fairly superficial examination of tonetic data leads to the realization that certain consonants, of which /ǥ/ is an example, have a lowering effect on all except "low level tones". For example, only tones of the following shapes will coincide with syllables introduced by /ǥ/: [_], [/], [^]. A conditioning factor associated with consonants of the type which /ǥ/ represents is thus identified from an examination of the tonetic data. Facts associated with this phenomenon of "depressor consonants" which has been identified, are highly pertinent with regard to the identification of tonemes. Providing that no association between one of the three tonal shapes given above and some other feature of the broader environment can be established, the fact that the syllable /ǥV/ coincides only with tones [_], [/] and [^] is strong, if not conclusive, evidence of at least a three way tonemic contrast. Proceeding from this to other evidence, the investigator soon realizes that three distinctive units of tone exist in Xhosa. A procedure which seeks out the location and nature of environmental influences which affect tones may, therefore, often be of great value in tonemic analysis.

2. In any piece of spoken Xhosa of sufficient length, it is possible to identify tones which can be described by the conventional terms "high tone, mid tone, low tone", etc., and also "rising and falling glides". The connotation of these terms is, however, purely tonetic. Tonemic equivalents will be found in terms such as "the raised allotone of the high toneme", etc. In this paper

[1] "In order to be considered submembers of a single phoneme, two segments must be (*a*) phonetically similar and (*b*) . . . . ." Kenneth L. Pike, *Phonemics*, Ann Arbor, 1947, p. 62.

tonetic data are generally presented by marking pitch levels and contours by short lines within square brackets. Five relative levels are marked within these brackets, but there is no indication as to where these levels occur in the pitch range of the speaker. The upper and lower limits of the brackets are adjusted to accommodate variations in pitch level with regard to a particular utterance heard from a particular informant at a particular time.

The following steps have been taken, for typographical reasons, to simplify the representation of gliding tones:

(*a*) Non-phonemic falling glides on short syllabics are ignored and indicated as level tones. (Usually, the descent is only from one level to the next below it).

(*b*) Phonemically significant falling glides, and also non-phonemic falling glides on long syllabics, are both represented by an oblique line commencing at the second level and descending to the fourth level. (The more gradual descent and lower starting point of the non-phonemic glide is thereby obscured.)

(*c*) Rising glides and rising falling glides are indicated by only one symbol each, viz. oblique lines between levels two and four. In some examples, however, it is important to know that glides of these two types are actually higher or lower than indicated. Where this is the case, a footnote draws attention to the fact.

B. The Tonemes

3. Every syllable of every utterance in Xhosa bears one of three tonemes. These tonemes are:

(*a*) *The high level toneme*

When uninfluenced by any of the conditioning factors described below, this toneme is realized at a pitch level discernibly higher than that of the allotone of the low level toneme to be found in a similar non-influencing environment. The pitch is maintained without any marked rise or fall. In this paper the symbol /H/ represents the high level toneme when referred to in isolation, e.g. in reference to the patterns of tonal morphemes. In association with the syllabic phonemes, it is represented thus: /**á, é, í, ó, ú, ḿ**/. This toneme can occur on any syllable within an utterance.

(*b*) *The low level toneme*

In this paper the low level toneme is represented thus: /L/ and /**à, è, ì, ò, ù, m̀**/. When uninfluenced by its environment, it is realized by an allotone which does not rise or fall in pitch. /L/ is unrestricted as to its occurrence within an utterance.

(*c*) *The high falling toneme*

When not seriously distorted by its environment, this toneme is realised by an evenly falling glide from a relatively high to a relatively low pitch level. The glide moves through a pitch interval which varies considerably according mainly to syllable length, but its distinctive character is seldom lost even in quick speech, due to concomitant vowel length which is bound to this toneme. The glide usually commences at a level somewhat lower than that at which /H/ would be realized in a similar enviroment and the unaccustomed ear tends to interpret it as a "mid tone". To an ear unaccustomed to discerning glides, the middle portion of the glide has undoubtedly the greatest acoustic prominence. It should be noted that falling glides may also occur as allotones of /L/ and, although it is often possible to distinguish between significant and non-significant glides, the investigator has often to resort to an examination of the particular tonal morpheme involved, in order to distinguish with certainty. The high falling toneme is symbolized by /F/ and /**â, ê, î, ô, û, m̂**/.

N.B.—The three tonemes described in this paper are found in all dialects of Xhosa. Most Xhosa speakers are aware of tonal differences between dialects, but these all lie in the field of tonal morphology. A not inconsiderable number of differences in toneme patterns will thus be found in dialect in Xhosa, but the same tonemic system operates throughout.

4. The toneme /F/ occurs at certain significant points in the morphological structure of Xhosa and the ability to identify /F/ is facilitated by a knowledge of these:

(*a*) With the suffix /**-ê**/ of the short perfect tense e.g.
/**ndìthê**/ (I said)
/**ßáßéthê**/ (they have hit)

(*b*) With all concords of the indicative remote past tense, positive, e.g.
/**wâphá**/ (he *or* you gave)
/**wâlìmá** (he *or* you ploughed)

(*c*) With the first syllable of the locative demonstrative copulative, e.g.
/**nâsí**/[1] (here it is—a dish); and also on the final syllable of the third position form, e.g.
/**nâsíyâ**/ (there it is yonder)

(*d*) With the prefix /**ô-**/ of noun class 1a plural, e.g.
/**ôßàwó**/[2] (our fathers)

(*e*) With the short form of the second positional demonstrative pronouns, e.g.
/**lôntó** (that thing) and /**lôndòdà**/[3] (that man)

(*f*) With the prefix of certain class 10 nouns, e.g.
/**înqwélò**/ (wagons);
/**înkâßì**/ (oxen)[4]

In addition, /F/ occurs less distinctively in verb, noun and qualificative stems:
/**úkùßônà**/ (to see)
/**éßônà**/ (he seeing—participial present tense)
/**éßúlêlè**/ (he having killed—participial perfect tense)
/**ísìßâyà**/ (sheep fold)
/**ísìphôxò**/ (fool)
/**áßàkhûlù**/ (big—adjective with class 1 plural reference).

It should be observed, however, that in these stems the sequence /FL/ coinciding with the final two syllables, will be substituted by /HH/ in quick speech when not in utterance-final position. Slow deliberate speech often reverses this process of substitution and restores /FL/ in medial positions. (This substitution of /F/ does not take place in the occurrences of /F/ noted in (*a*)—(*f*) above.) The substitution /FL/>/HH/ is accompanied by the loss of concomitant vowel length with /F/. Examples of the substitution /FL/>/HH/:
/**éßóná kákùhlé** (he seeing well)
/**ísìßáyá ésìkhûlù**/ (big sheep fold)
/**ísìßáyá ésìkhúlú kàkhûlù** (very big sheep fold)

In using the double vowel symbol coinciding with /F/ in many forms, Xhosa orthography suggests the presence of significant vowel length. This use of the double vowel symbol with its implication of phonemic vowel length[5] should, however, be avoided, in view of the fact that this length is conditioned by the presence of /F/ and has no contrastive function.[6] If the toneme

[1]Formerly written as *naasi*, the revised (1956) Xhosa orthography now requires that this be written as *nasi*. All forms in this paper are written in an orthography which is phonemic according to our analysis of the phonemes of Xhosa. The revised (1956) orthography ignores certain important phonemic contrasts, but coincides broadly with our phonemic orthography. In cases of phonemic confusion, pre-1956 symbols are resorted to.

[2]*oobawo* in the pre-1956 orthography. Now written *obawo*.

[3]Written *loonto* and *loondoda* in the present and pre-1956 orthographies.

[4]Written as *iinqwelo* and *iinkabi*. The present Xhosa orthography and, indeed, the present teaching of Xhosa in schools seeks to establish a distinction between singular and plural of certain class 9/10 nouns which has no existence in speech. (Classes 9 and 10 are paired according to singular and plural number in Xhosa.) Certain nouns, e.g. *intaka* (bird), *incwadi* (book, letter), are identical in singular and plural, and the prefix always bears the high level toneme. Other nouns, e.g. *ifama* (farm), *intwana* (small thing), *inqwelo*, *inkabi*, distinguish between singular and plural merely by the toneme of the prefix; the high level toneme occurs in the singular form and the high falling toneme in the plural form. A strictly limited correlation exists between these two groups of class 9/10 nouns and tono-morphological classes. For example, disyllabic nouns with stem patterns /HL/ and /LH/ occur in both groups. Nouns with stem pattern /LL/ occur only in the group where singular and plural forms are identical. Those with stem pattern /FL/ occur only in the other group.

[5]Alternatively, of course, like vowels in sequence may be symbolized in this way. In Xhosa, however, vowels do not occur in sequence.

[6]A comparison with Swazi clearly illustrates how vowel length is conditioned by the presence of the high falling toneme. Swazi lacks this toneme having only the high and low level tonemes, and the short vowel of the indicative remote past tense concords, for example, are in striking contrast with the same forms in Zulu and Xhosa where the extra length of the vowel seldom passes unnoticed. Xhosa /F/ may be replaced by /H/ or /L/ in Swazi.

is marked, no indication of vowel length is necessary.

Vowel length accompanying /F/ is relative according to context, position within an utterance and rate of utterance, but there are also notable differences in the relative length of long vowels between the various occurrences of /F/ which have been noted above. In measuring these differences, the characteristic length of the penultimate vowels of most words provides a good yardstick, and it can be said that /**â, ê, î, ô, û**/ are in the majority of cases shorter than the penultimate vowel in the particular word, phrase, etc.,[1] within which the comparison is made (except, of course, where /F/ is itself in penultimate position). An exception to this statement is /**â**/ in locative demonstrative copulatives where the speaker's emotional attitude may result in vowels of exceptional length, e.g. /**nâsíyâ**/ [**na::sija::**] (there it is far away in the distance—noun of class 7 singular).

Vowel length accompanying /F/ is longest in locative demonstrative copulatives and in the concords of the indicative remote past tense. It is usually shortest with /**-ê**/ of the short perfect tense, e.g. /**ɓáɓéthê kàkhûlù**/ [**ɓaɓɛthɛ· kʔakhu:lu**] (they have hit a great deal).

/F/ occurs in all positions and on all types of syllable, with the exception of syllabic /**m**/, of which no examples with this toneme have been recorded.

5. A basic ditonemic structure in Bantu languages generally is evident from recent research in this field and /F/ therefore represents an increase in the phoneme inventory of certain dialects of the Nguni group. Although speculation as to the origin of /F/ is beyond the scope of this paper, it is of interest to observe that in at least three instances /F/ occurs at points where two syllables have merged, according to synchronic evidence, viz. (*a*) indicative remote past concords, e.g. /**ndâ-**/ < /**ndi-a-**/; (*b*) short forms of the demonstrative pronouns, e.g. /**lô-**/, cf. the long forms /**léyò**/, /**lówò**/; (*c*) the monosyllabic class 10 prefix /**îN-**/, cf. the disyllabic class 10 prefixes /**ízíN-**/ or /**ízìN-**/ which occur with monosyllabic stems in that class. Historical and comparative data give further evidence of syllable merger, for example, in the case of noun class 1a plural prefix /**ô-**/ which in Zulu has the form /**awo-**/ as one of two alternatives.

These facts, coupled with that of concomitant vowel length, immediately suggest the interpretation of the high falling glide in terms of its end-points, i.e. as the sequence /HL/. This has the advantages of simplicity of description and conformity with the majority of Bantu languages.

The reasons for rejecting this interpretation are: /F/ is morphologically bound to a very limited extent, the main examples of this having been indicated in (*a*)—(*f*) in §4. Where /F/ occurs with noun, verb or adjectival stem, /H/ and /L/ freely substitute for it when the stem is passed through various inflexional sub-categories, but it never occupies a position normally occupied by a sequence of two other tonemes. There is always a one-to-one correspondence between /F/ and /H/ or /L/. (See, for example, the comparison of toneme patterns corresponding to tono-morphological classes in the subcategories of the verbal conjugation at § 10 (*b*).) To interpret /F/ as /HL/ in such cases would introduce a discordant note of structural asymmetry. The perfect tense suffix /**-ile**/, for example, would bear first two tonemes and then three in passing from the indicative perfect positive tense to the participial perfect positive tense (viz. /HL/ and /HLL/). We therefore regard instances where /F/ coincides with syllable merger as possible indications of the origin of this toneme, but do not believe that /F/ can be interpreted polyphonematically any longer. In other words, /F/, originating possibly as a combination of two tonemes, has now passed into use within the overall structure of the language as a single significant unit of tone and must now be interpreted as a toneme in its own right.

[1]Long word-penultimate vowels are potential and not necessarily actual in connected speech. In connected speech penultimate vowel length usually coincides with certain types of syntactical boundary and does not occur in every word.

The alternative interpretation of /F/ as /HL/ is feasible provided it does not require an acceptance of vowel sequences, e.g. /**â**/ as /**áà**/, for the reason that such sequences are not permitted, a consonant always separating vowels in Xhosa. If the polyphonematic interpretation is favoured, a solution may be provided by recognizing vowels of one and two morae, the latter to be found where /HL/ is substituted for /F/ as it occurs in this paper. Vowel length would thus be conditioned by the presence of two tonemes on one vowel.

The interpretation of /F/ as /HL/ would be regarded as preferable if examples are found where non-predictable long vowels[1] coincide with a sustained high tone or a sustained low tone, which could be interpreted as the sequences /HH/ and /LL/ on a single syllabic phoneme. Since /HL/ is the only existing pattern in a toneme sequence where four patterns are possible, the unitary interpretation is preferred.

6. Environmental features on both the segmental and suprasegmental planes influence the tonemes of Xhosa very profoundly. Of the four main conditioning factors given below, it will be seen that the first is associated with the segmental environment and the remainder with the suprasegmental environment. The latter arise out of the mutual influence of tonemes in sequence. Only an outline of the effects of these conditioning factors is given below, a full description being postponed until section D.

(1) The consonant which introduces a syllable frequently produces a distortion of the toneme borne by that syllable. Approximately one-third of the total number of consonants act as "depressors" and produce lowered allotones of /H/ and /F/. Non-phonemic rising glides are the result of the influence of depressor consonants. Depressors are consonants incorporating the significant sound features: Voicing accompanied by explosion, or constriction which produces friction. (See § 12 for a full list of these consonants). Consonants which lack these features *in combination* are "non-depressors" and exercise no influence on tones. Polysegmental phonemes with initial nasal (nasal compound phonemes) act according to their non-nasal segment(s).

(2) In sequences where "high tonemes" and "low tonemes"[2] alternate, the pitch of a high toneme immediately succeeding a low toneme is nearly always lower than that of any preceding high toneme (e.g. in sequences of the type /HLH/, /FLH/, /HLF/, /FLF/ and also /HLLH/, /FLLH/, etc.), and a low toneme immediately succeeding a high toneme is lower in pitch than any preceding low toneme, although this tonal downstep is less prominent than that involving the high tonemes. The phenomenon of the tonal downstep is a common one in Bantu and accounts for the pitch descent from the beginning to the end of most breath-groups. The boundary of the tonal step, which is the unit within which pitch contrasts are rigidly maintained, lies between the tonemes in the sequences /LH/ and /LF/. The sequence /HFLHLLHLFHL/, for example, can be broken up into the following tonal steps: /HFL-HLL-HL-FHL/. Downsteps do not normally occur in sequences of like tonemes.

(3) A low toneme coinciding with a non-depressor and immediately succeeding a high toneme is raised by assimilation and is usually realized as a falling glide.

(4) In sequences of the toneme /H/, there is a tendency[3] for each /H/ to be realized at a pitch slightly higher than the preceding /H/ or, alternatively, a sequence of three or more /H/s is realized as a se-

[1] e.g. Vowel length in syllables other than penultimate.

[2] An ability to refer to both /H/ and /F/ as the "high tonemes" in contrast with "low toneme" /L/ greatly facilitates description.

[3] The use of the term "tendency" in statements regarding the conditioning of tonemes, indicates that the effects of the conditioning factor under discussion are nearly always, but not invariably, evident. Where "tend" or "tendency" is not used, the occurrence can be regarded as one of perfect regularity.

quence of relatively high pitches of about the same level, except for the final /H/ which is of a higher pitch than any preceding /H/. This "crescendo of /H/s in sequence" is, however, seldom evident when the sequence is broken by /F/ or a syllable in which /H/ coincides with a depressor.

(5) A low toneme falling between two high tonemes (either /H/ or /F/) is raised by assimilation to the latter. This process takes place even if the low toneme coincides with a depressor.

7. The tonemes exemplified:

(*a*) Minimal and nearly minimal pairs exemplifying the /H/ : /L/ contrast:
/úkùsíndà [¯ - ¯ _] or [¯ - - _][1] (to escape):
/úḳúsìndà/ [- ¯ ∖ _] (to smear)

Note regarding **úkùsíndà**:
(i) Tonal downstep between 2nd and 3rd tonemes.
(ii) The 2nd toneme is raised by assimilation to the preceding and succeeding /H/.

Note regarding **úkúsìndà**:
(i) The realization of the 3rd toneme by a falling glide is due to assimilation to the preceding /H/.
(ii) 1st and 2nd tonemes rise in crescendo.

/úqálílè/ [¯¯_] (he has started):
/ùqálílè/ [_¯_] (you have started)
/ámáthàngá/ [¯¯∨] (thighs):
/ámáthàngà/ [¯¯∖_] (pumpkins)
Note that depressor **/ng/** coinciding with /H/ produces a rising glide.
/ndìyàqàʃà/ [____] (I select):
/ndìyàqáβà/ [__¯_] (I smear clay)
Note that assimilation of the final /L/ to the preceding /H/ tends to neutralize the effect of the downstep process.
/ísízìβá/ [¯_¯_] (piece of cloth):
/ísízìβà/ [¯¯__] (deep pool)

(*b*) Minimal and nearly minimal pairs exemplifying the /H/ : /F/ contrast:
úkùsíndà/ [¯-¯_] (to escape):
úkùsîndà/ [¯-∖_] (to weigh down)
/ndìyàkùβónà/ [___¯_] (I see you):
/ndìyàkùβônà [___∖_] (I will see)
/lómntù/ [¯¯_] (this person):
/lômntù/ [∖¯_] (that person)
/ílókhwè/ [¯¯_] (dress):
/îlókhwè/ [∖¯_] (dresses)
/lífúnílè/ [-¯¯_] (it has wanted—indic. perfect tense):
/lífúnîlè/ [-¯∖_] (it having wanted—participial perfect tense)
/βásáβéthà/ [¯¯¯_] (they still hit):
/βésáβêthà/ [¯¯∖_] (they still hitting)

N.B.—The form **/ukusinda/** provides a satisfactory triplet, in which the third syllable illustrates the /H/ : /L/ : /F/ contrast, in the case of some speakers only. With many speakers **/úkùsîndà/** signifies both "to weigh down" and "to escape". In Zulu also the latter significances are conveyed by a single form. Observe in the examples given how the toneme pattern of the noun prefix depends entirely upon the first toneme of the stem.

(*c*) Minimal and nearly minimal pairs exemplifying the /F/ : /L/ contrast:
/ámàthângà/ [¯¯∖_] (cattle posts):
/ámáthàngà/ [¯¯∖_] (pumpkins)
/ísìhlâhlà/ [¯¯∖_] (wrist):
/ámáhlàhlà/ [¯¯∖_] (bushes)
/βálìmê/ [¯-∨] (they have ploughed — indic. perfect tense):
/βálímè/ [¯¯_] (they should plough—subjunctive present tense)
/ímbâlà/ [¯∧_] (a single one)[2]:
/ímbàlà/ [¯__] (skin blemish)
/úkùsîkà/ [¯¯∖_] (to cut):
/úkúsìthà/ [¯¯∖_] (to screen)

C. The Function of Tonemes

8. A study of the integration of the tonemes into the overall structure of Xhosa is largely an examination of sequences of tonemes in particular patterns associated

[1] A kymograph recording of this form by one informant reflects no difference in pitch level between /L/ and /H/ across the boundary of the tonal step.
[2] Used in negative constructions signifying "not a single one".

with morphological categories and subcategories. Like most other tone languages of Africa, Xhosa makes grammatical rather than lexical use of significant syllable tone. In languages like Chinese which make lexical use of tone, each syllable has an inherent toneme, and the bond between the toneme and the segmental phonemes is, with few exceptions, a permanent one. In Xhosa, however, the permanent association is not between toneme and syllable, but rather between the tonemes themselves within patterns of different shapes (tonal morphemes). As far as tonemes are concerned, the close-knit unit is that of a group of tonemes arranged in a particular way and associated with a particular grammatical category or subcategory. The association between tonemes and morphemes is of the loosest, and only in a very few instances do our data yield examples of segmental morphemes which consistently bear the same tonemes.

The study of the configuration of the large number of tonal morphemes and their combination and substitution in the process of inflexion and derivation, reveals a most intricate system of tonal grammar which is still largely unexplored. It is necessary that tonal grammar be described as a system apart from, but not divorced from, that involving segmental morphemes. Among the reasons for this is the fact that description is often facilitated by equating a single tonal morpheme to more than one segmental morpheme. For example, in the verbal conjugation greater simplicity is achieved by associating tonal morphemes with stems rather than with radicals. Furthermore, the substitution of tonal morphemes may alone signalize the transference of a form from one morphological category or subcategory to another.

9. In our study of the combination and substitution of tonal morphemes, there is as yet no evidence of any extensive process of mutual influence of tonemes across morpheme boundaries resulting in the purely mechanical substitution of tonemes. Tonemic changes arising out of particular combinations of tonal morphemes (such as those exemplified at § 10(*d*)) are best treated as the substitution of such morphemes. It is unlikely, therefore, that there are any important entries under the heading of "morphotonemic changes".

10. Although the immediate concern of this paper is with the identification and description of tonemes, some explanation of the workings of tonal morphology is necessary, if only for the reason that the certain identification of some tonemes distorted by their environments is best achieved by reference to the shape of the tonal morpheme involved. The data given below are chosen to illustrate the shape of certain important tonal morphemes and toneme pattern phenomena generally.

(*a*) *The toneme patterns of noun prefixes.* Monosyllabic prefixes of classes 1a, 5, 9 and 11 all bear the toneme /H/, while those of nouns in class 2a bear the toneme /F/. Class 10 nouns with monosyllabic prefixes fall into two groups according to whether the toneme of the prefix is /H/ or /F/ (see footnote 4, on p. 68). The disyllabic prefixes of the remaining classes have the prefix patterns /HL/ or /HH/. The choice between these patterns is determined simply by the initial toneme of the stem. A stem-initial high toneme determines /HL/ while a stem-initial low toneme determines /HH/. A simple rule of dissimilation is thus seen to operate across the morpheme boundary.

/**ámàsélà**/ [¯-¯_] *or* [¯--_] (thieves)
/**ámádòdà**/ [¯¯__] (men)
/**úkùɓéthà**/ [¯-¯_] (to hit)
/**úkúɓàlà**/ [¯¯_] (to count)
/**úkùɓônà**/ [¯-_] (to see)
/**úkúsà** [¯¯_] (to send)
/**úkùsá**/ [¯-¯] (to dawn)
/**ísìfûɓà**/ [¯-_] (chest)
/**ísízìɓà**/ [¯¯__] (deep pool)
/**ísíhlàngú**/ [¯¯\/] (shoe)
/**ísìfúndò**/ [¯-¯_] (lesson)
/**ùm̀zì**/ [¯¯_] (kraal)
/**úm̀zí**/ [¯\/] (thatching grass)
/**úɓùfánà**/ [¯-¯_] (manhood)
/**úɓúhlòɓò**/ [¯¯_] (friendship)

The toneme patterns of disyllabic adjectival concords are, to a large extent,[1] governed by similar considerations to those indicated above, i.e. the rule of dissimilation, e.g.

/ísìthó ésìkhûlù/ [¯_-¯-__] (big foot)
/ísìthó ésínzìmà/ [¯_---¯__] (heavy foot)
/ílítyè élíʃùʃú/ [-¯_--_] (warm stone)
/ílítyé élìlúlà/ [-¯_-_-_] (light stone)
/ílítyè élíɓànzí/ [-¯_--\/] (broad stone)

(*b*) *The tonal behaviour of disyllabic verb stems in the conjugation.* These verb stems fall into three tono-morphological groups, viz. (1) /FL/, (2) /HL/, (3) /LL/ (infinitive stem patterns), but this trichotomy is maintained in only a small percentage of the subcategories of the verbal conjugation. In most conjugational forms two of these groups share a single toneme pattern, while in a few instances one toneme pattern is shared by all three. The following indicates the allocation of some common disyllabic verb stems among the tono-morphological groups.

1. /FL/	2. /HL/
/-bâlà/ (write)	**/-ɓéthà/** (hit)
/-ɓônà/ (see)	**/-bólà/** (bore a hole)
/-ɓûyà/ (return)	**/-ɓékà/** (place)
/-fûnà/ (want)	**/-hámbà/** (walk)
/-hlôlà (investigate)	**/-lálà/** (lie down)
/-vûyà/ (be joyful)	**/-hlúthà/** (become replete)

3. /LL/
/-ɓàlà/ (count)
/-cìngà/ (think)
/-bèkà/ (look at)
/-gùlà/ (be ill)
/-zàmà/ (strive)
/-hlùthà/ (plunder)

The behaviour of these tonal groups through part of the verbal conjugation is exemplified below. In finite forms the subjective reference is to the 1st person, plural, in each case, e.g. **/sigula/, /asigulanga/,** etc.

	1. /FL/	2. /HL/	3. /LL/
Infinitive positive:	/HLFL/[2]	/HLHL/	/HHLL/
Indicative present positive (long form):	/LLHL/	/LLHL/	/LLLL/
Indicative remote past positive:	/FFL/	/FHL/	/FLH/
Indicative perfect positive (long form):	/LHHL/	/LHLL/	/LLLL/
Participial present positive:	/HFL/[2]	/HHL/	/HHL/
Participial perfect positive:	/HHFL/[2]	/HHFL/[2]	/HHFL/[2]
Subjunctive present positive:	/HLH/	/HLH/	/LHL/
Subjunctive past positive:	/HHL/	/HHL/	/HLL/
Potential present positive:	/LHHL/	/LHHL/	/LHLL/
Indicative present negative:	/LLHL/	/LLHL/	/LHHL/
Indicative perfect negative:	/LLLHL/	/LLLHL/	/LHLHL/

(*c*) *The tono-morphological grouping of nouns with disyllabic stems.* Nouns of this type fall into four groups, viz. (1) /LL/, (2) /LH/, (3) /FL/, (4) /HL/.

1. /LL/	2. /LH/
/ìthàngà/ (pumpkin)	**/ìthàngá/** (thigh)
/ísílòndà/ (wound)	**/ísíhlàngú/** (shoe)
/ígùʃà/ (sheep)	**/índlèɓé/** (ear)
/úsíthùphà/ (thumb)	**/údòngá/** (wall)

3. /FL/	4. /HL/
/ìthângà/ (cattle post)	**/úɓùfánà/** (manhood)
/ísìthûnzì/ (shadow)	**/ísìNgésì/** (English)
/úfûdò/ (tortoise)	**/íntlókò/** (head)
/ínkâɓì/ (ox)	**/íɓélè/** (breast)

When inflected to form locative adverbs, these four groups behave thus:

Disyllabic prefix:
1. /HHLL/>/HHHLL/
2. /HHLH/>/HHLHL/
3. /HLFL/>/HLHLL/
4. /HLHL/>/HLHLL/

Monosyllabic prefix:
1. /HLL/>/HHLL/ or /HLHL/
2. /HLH/>/HLHL/
3. /HFL/>/HLHL/

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[1]Concords used with monosyllabic adjectival stems have uniformly the pattern /HL/.
[2]These are utterance-final forms. /HH/ substitutes for /FL/ in non-final position in quick speech.

4. /HHL/>/HHLL/

N.B.—A limited number of nouns of group 1, e.g. /**índlèlà**/ (route, road) share the pattern /HLHL/ with groups 2 and 3.

(*d*) The following illustrate further that no inherent toneme patterns can be associated with verbal morphemes. In addition, they demonstrate the manner in which tonal morphemes are substituted when they enter into certain types of combination. In the examples given, certain simple rules of substitution can be discerned which do not require stating here.

/**àlíqhùßángà**/, i.e. /LHLHL/ (he has not driven)
cf. /**àlìyíqhùßángà**/, i.e. /LLHLHL/ (he has not driven it)

/**àlìyíqhùßángà**/
cf. /**àlìyìthándì**/, i.e. /LLLHL/ (he does not like it)

/**líyàßéthà**/, i.e. /HLHL/ (he is hitting)
cf. /**líyálìmà**/, i.e. /HHLL/ (he is ploughing)

D. Environmental Influences: Their Nature and Effects

11. Allotones are conditioned by factors already referred to in § 6. These conditioning factors exercise a uniform influence on all tonemes, although the full effects of their influence are not entirely predictable and require examination in detail.

Factor 1. *The high tonemes are lowered by depressors.*

12. Depressors are voiced consonants with an inherent low tone and because of this the voice is forcibly lowered to a pitch well below that which would provide the normal realization of /H/ or /F/. The full list of depressors is: **/b, d, dy, g, mh, nh, nyh, v, z, gr, h, dl, dz, j, gc, gq, gx, ngc, ngq, ngx, mb, nd, ng, mv, nz, nj, ndl.**[1] Vowels exercise no influence whatsoever on tones and in passing from a depressor consonant which introduces the syllable, to the immediately succeeding vowel, there is release from the effect of the consonant and a consequent striving to achieve the required pitch level of /H/ or /F/.

It is clear that under these circumstances a rising glide results and a glide of this kind coinciding with a depressor is a certain indication of /H/. /H/ can thus be realized by an allotone of the shape [˗] at various pitch levels. As regards /F/, the significant fall in pitch still remains after the necessary height has been gained and the result is allotones of the shape [˄].

Allotones [˗] and [˄] exemplified:

/**ndìzámè**/ [_˗_] (I should strive—subjunctive present tense)
/**ùvúkílè**/ [_˗¯_] (you have wakened)
/**ízílòndá**/ [¯˄_] (wounds)
/**ézámà**/ [¯˗_] (he striving—participial present tense)
/**ndìngáhámbà**/ [_˗˗_][2] (I can walk)
/**ngásò**/ [˗¯] (by means of it—instrumental adverb)
/**éncwàdíní**/ [¯˗_] (in the book), cf. /**énkòméní**/ [¯_¯_] with the same toneme pattern.
/**ndâkhèthá**/ [˄˖¯] (I chose—indicative remote past tense)
/**zâlímá**/ [˄˖¯] (they ploughed)
/**ímbûzì**/ [¯˄_] (goat)
/**úkùdêlà**/ [˪¯˄_] (to despise)

13. The auditory perception of all conditioned glides, including those occurring as the result of conditioning factor 3, is heavily dependent upon syllabic length. The duration of the normal short syllabic in quick speech is often not sufficient to discern the glide and, instead, a very short level tone near to the starting point of the glide is heard. A keen ear may, of course, discern a short glide in the majority of cases. All glides emerge clearly, however, when they coincide with the long vowel in word-penultimate position.

It will be seen therefore, that as a result of the conditioning factors now being discussed, /H/ may be heard as a "mid tone" or even as a "low tone". Similarly /L/ may be heard as a "mid tone" or even a "high

[1]Versions of these consonants which incorporate **w**, e.g. /**dw**, **gw**/, also act as depressors.
[2]The rising glide on the third syllable is more prominent than that on the second syllable and ends at a higher level than the latter.

tone"[1]. The fact that /F/ coincides with vowel length renders the obscuring of this phonemically significant glide less likely than is the case with the glide allotones of /H/ and /L/.

The following are examples from our data of a form in which a conditioned glide obscured by the shortness of the syllable was often not recognized and the tonemes were consequently identified incorrectly.

	Quick speech	Slow speech	
/**áʃùʃú**/	[¯--]	[¯\-]	(it is warm)
/**íqàqá**/	[¯--]	[¯\-]	(polecat)

It can be seen that, taken from quick speech, the toneme pattern of these forms may well be interpreted as /HLL/.

Factor 2 *A high toneme tends to be lower in pitch than any preceding high toneme if separated from it by one or more low tonemes. Similarly a low toneme is often lower in pitch than any preceding low toneme separated from it by one or more high tonemes.*

14. A tonal downstep will, with few exceptions, be found at points where a break in type of toneme occurs (the high tonemes as opposed to the low toneme). Where the high tonemes are involved (e.g. in the sequence /HLH/) the fall in pitch from the first to the second high toneme is usually more noticeable than in the case of the low toneme, as, for example, the fall between the first and second /L/ in the sequence /LHL/. Not only is the downstep between low tonemes acoustically less prominent, but it is also more frequently neutralized (see § 15).

Despite lack of prominence and a strong tendency towards neutralization, it is clear that the downstep phenomenon affects /L/ as well as other tonemes because of the fact that except in very quick speech in positions near the end of a breath-group, the contrast between low and high tonemes is not lost. A process by which high tonemes are progressively lowered, but not the low toneme, would soon destroy the contrast between them.

The breath-group thus descends towards its end in a series of tonal steps[2] with results such as: (*a*) /L/ in the final step is lower than any preceding /L/; (*b*) /H/ in the final step is lower than any preceding /H/, and, in fact, may be of the same pitch as /L/ in an immediately preceding step.

The phenomenon of tonal downsteps often provides the interpretation of "mid tones" which have confused earlier investigators, e.g. /**nìyàfúndà**/ [_¯_] (you are learning). A superficial examination made in ignorance of the downstep phenomenon may result in the postulation of three significant pitch levels in this form.

Examples given at § 18 illustrate fully the tonal downstep phenomenon.

15. Conditioning factors 4 (crescendo of /H/s in sequence) and 5 (tonal assimilation of a low toneme between two high tonemes) tend to neutralize the downstep phenomenon and affect in particular, the toneme /L/. Examples in connection with conditioning factor 5 will be found at § 25; the following illustrate downstep neutralization as a result of factor 4:

/**ímfè éncínánè**/ [¯---¯_] (small sugar cane)

(/H/ on the 1st and 5th syllables is realized at the same pitch level. A crescendo of /H/s in sequence occurs on the 3rd, 4th and 5th syllables.)

/**ndìßúlélè**/ [_-¯_] (I killed)

(/L/ on the first and last syllable has the same pitch level).

The downstep phenomenon as it affects /L/ is also likely to be absent where /L/ coincides with a non-depressor and a syllabic which is either of very short duration,

[1]The tonetic data presented in this paper reflects the slow deliberate speech of our informants. Reasons for rejecting quick speech as the basis for analysis are discussed in Appendix A. Note, however, that the tendency of final vowels to devoicing means that even in slow speech conditioned glides on these syllables are not always discernible.

[2]What is implied by this statement represents an oversimplification. All breath-groups are not a straight descent from their beginning to their end. At certain points within a breath-group an ascent may occur before the descent is resumed or there may be a levelling out and the descent is resumed at a later stage. The fact is, however, that except for short questions, the beginning of a breath-group is always higher in the pitch range than its end.

or is in breath-group final position. In both cases (as a result of devoicing in the latter case) the usual low falling glide is not discernible and only the initial, consonantally influenced portion of the allotone is perceived.

16. Within syntactical groups of certain types the downstep phenomenon proceeds across word boundaries and is quite unaffected by them. The syntactical groups referred to are primary units of syntactical immediate constituents such as: substantive + predicative; substantive + qualificative; predicative + adverb; substantive + qualificative + adverb; e.g.

/**índòdà énkûlù**/ (big man)
/**óséßénzà nzìmà**/ (who works hard)
/**ùfúndà kákùhlé**/ (you read well)
/**úmntù úyàhámbà**/ (the person is walking)

N.B.—The following are *not* syntactical groups of the type referred to:

/**úyásìfúnà ísíhlàngú**/ (he wants the shoe)
/**ínjá yákhò énkûlù**/ (your big dog)
/**útítʃhàlà wákhò úfúndìlè** (your teacher has read)

Two primary units of syntactical immediate constituents are contained in each of these examples.

Syntactical boundaries of a higher order, however, may coincide with a tonological phenomenon such as an unusually big downstep, at which point none of conditioning factors 2, 4 or 5 have any influence. Note the unusually big downstep to /**ísíhlàngú**/ in the following example, this word standing apart from the immediate constituent unit /**ndìsìßónà kákùhlé**/:

/**ndìsìßónà kákùhlé ísíhlàngú**/
[‾‿‾‿‾‿‾\/] (I see the shoe well).

17. The phenomenon of the tonal downstep is illustrated by the following examples which are grouped initially according to sequence types and then under the heading "miscellaneous examples", in which examples of the operation of the process across word boundaries are included.

Sequence /HLH/:
/**índìmá** [‾‿‾] (patch of cultivated ground)
/**índlèßé**/ [‾‿‾] (ear)
/**úmséßénzì**/ [‾‿‾‿‾] (worker)
/**úßùhlé**/ [‾\‾] (beauty)
/**áßàßántù**/ [‾‿‾] (these people)
/**ísìNgésì**/ [‾‿/‾] (English)
/**ndíngàhámbì**/ [/‾/‾][1] (I should not go—present subjunctive tense)

Sequence /HLF/:
/**ámàfûthà**/ [‾‿\‾] (fat)
/**úmzîmbà**/ [‾‿^‾] (body)
/**úmphûngà**/ [‾‿\‾] (lung)
/**émìnînzì**/ [‾‿\‾] (many—class 2 plural reference)

Sequence /FLH/:
/**ndâlìmá** [^\‾][2] (I ploughed)
/**wâkhèthá**/ [\\‾][2] (You *or* he chose)
/**lôntòmbí**/ [\\/][2] (that girl)

Sequence /LHL/:
/**ùßúlèlè**/ [‾‿\‾] (you have thanked)
/**àkùthándì**/ [‾‿‾‿] (you do not like)

Sequence /LFL/:
/**ndìyàkùßôphà**/ [‾‿‾‿\‾] (I will tie)
/**úkùvûyà**/ [‾‿^‾] (to be joyful)

Miscellaneous examples:
HL-H: /**áßántù áßángénántó**/ [‾‿‾‿‾/‾‿‾] (people who have nothing)
/**úfúndà ísìNgésì kákùhlé**/ [‾‿‾‿‾/‾‿‾‿‾] (he reads English well)
H-LH: /**ínkòmó ìyékwè**/ [‾‿‾‿‾‿‾] (the beast should be left)
HL-F: /**úmntù wâmphà ímàlí**/ [‾‿‾\‾‿‾‿‾] (the person gave him money)
F-LF: /**ßáßéthê kàkhûlù**/ [‾‿\‾\‾][1] (they have hit a great deal)

18. From the preceding description of the tonal downstep phenomenon it is clear that the process does not occur in sequences of like tonemes. This is entirely true as far as /L/ is concerned, but two exceptions concerning /H/s in sequence are noted below.

[1]The first glide is tonally higher but acoustically less prominent than the second.
[2]In all three examples the second glide is tonally lower than the first and, being conditioned, is less distinctive as a glide.

The sequence /HH/ on the first two syllables of nouns of classes 5 and 11 (with prefixes /**i-**/ and /**u-**/) are not marked by a crescendo (in accordance with factor 4), but usually by a downstep between the first and second /H/ or, alternatively, the two tonemes are realized by allotones at about the same pitch level, e.g.

/**únwélè**/ [¯-_] (a hair)
/**íßélè**/ [¯-_] (a breast)

These exceptions are undoubtedly associated with the contractions in the noun prefixes, viz. /**ulu-**>**u-**/ and /**ili-**>**i-**/. With uncontracted prefixes the examples would be /**úlùnwélè**/ and /**ílìßélè**/ and the normal downstep would occur between /H/s on the 1st and 3rd syllables.

The sequence /HH/ resulting from the substitution /FL/>/HH/ (see § 4) may also be associated with an exceptional tonal downstep. This is described at § 23.[1]

Factor 3. *A low toneme coinciding with a non-depressor and immediately succeeding a high toneme is raised by assimilation to the latter.*

19. Falling glides are the usual result of the influence of this conditioning factor, unless the syllabic is so short that the glide is obscured. The following examples illustrate the allotone [\] of /L/.

/**úßàwó**/ [¯\-] (my father)
/**ßáyálìmà**/ [-¯_] (they are ploughing)
/**ínkòmó**/ [¯\-] (head of cattle)
/**úkúsìndà**/ [-¯_] (to smear)
/**éntwánèni**/ [-¯_] (in a small thing), cf. /**éntánjèni**/ [-¯_] (on a rope), of the same toneme pattern.

It is the effect of the preceding high toneme alone which conditions the glide, as the following comparison shows:

/**sìsìndìlè**/ [----] (we have smeared)
cf. /**úkúsìndà**/ [-¯_] (to smear)

Factor 4: *In a sequence of /H/s each /H/ tends to be higher in pitch than the preceding toneme, or, alternatively, final /H/ in a sequence of /H/s tends to be higher in pitch than any other.*

20. The crescendo of /H/s in sequence (tonal upsteps) is a process most evident when three or more /H/s occur in sequence, none of which coincide with a depressor consonant. The process is usually discernible also when the sequence consists of two /H/s only. In this connection the presence of a tonal upstep in noun prefixes with the toneme pattern /HH/ will have been observed in many examples in this paper. Further examples are provided by the following:

/**líßónílè**/ [--¯-_] (it has seen—indicative perfect tense)
/**ítí**/ [-¯] (tea)
/**lámádòdà**/ [-¯_] (these men)
/**ßónánì**/ [-¯-_] (see ye—imperative)
/**úmá**/ [-¯] (my mother)
/**ésáséßênzà**/ [--¯_] (he still working—participial present tense)
/**ínkwénkwézì**/ [-¯-_] (star)
/**únámándlà**/ [-¯-_] (he has strength)

When a sequence includes a syllable in which /H/ coincides with a depressor, the process is not as noticeable as in the examples given above, but it may occur, as the last two examples given below indicate. The crescendo becomes more prominent if the syllable introduced by the depressor is long enough for /H/ to recover from the lowering effect of the consonant.

/**ßángáfúndà**/ [-/-_] (they can learn)
/**ávúmélànà**/ [-/-_] (they agree)
/**úhámbìlè**/ [-/_] (he has gone)
/**ndìngázúzà**/ [-//_][2] (I can earn)
/**ézíndáßènì**/ [-//_][2] (in the affairs)

/F/ does not take part in this process of tonal upsteps, e.g.

/**éfíhlà**/ [-_] (he concealing)
/**ßésáfúnà**/ [-_] (they still wanting)

[1] In this paragraph (18) the distribution of an allotone is described in terms of morphological environment and, according to some linguisticians, a fundamental principle of linguistic analysis is thereby violated. Argument on this contentious point cannot be presented here, but it can be said that the analysis is made in full cognizance of the principle involved and that this interpretation is preferred to the cumbersome and structurally unrealistic alternatives which have been examined.

[2] In each example the second rising glide is tonally higher than the first.

/**wâßéthà**/ [\˙¯_] (he hit)
/**îfámà**/ [\˙¯_] (farms), cf. /**ífámà**/ [¯˙¯_] (farm)

21. It has been stated that the crescendo of /H/s in sequence is most noticeable when /H/s are unfettered by depressors or /F/s in the sequence. In this connection it will be observed that with a sequence of /H/s which lacks depressors or /F/s, the complete sequence is often raised in the pitch range of the speaker above the region within which a similar sequence incorporating /F/ or a syllable with depressor consonant would occur. Particular attention is drawn to this phenomenon where it occurs in the noun prefixes. For example, /**ísí-**/ is likely to bear allotones noticeably higher in pitch than /**ízí-**/, e.g.

/**ísítyà**/ [¯˙¯_] (a dish), cf. /**ízítyà**/ [-/˙_] (dishes)
/**ísíhlàngú**/ [¯˙\/] (shoe), cf. /**ízíhlàngú**/ [-/\/] (shoes)

The following contrasts provide further illustrations:

/**líphélílè**/ [¯˙¯˙¯_] (it has finished), cf. /**lívúyílè**/ [-/-_] (it has been joyful)
/**úmséßênzì**/ [¯˙¯˙_] (work), cf. /**úmséßénzì**/ [¯˙¯˙¯_] (worker)
/**líßíkílè**/ [¯˙¯˙¯_] (he has reported), cf. /**líßízílè**/ [_-/_] (he has called—indicative perfect tense) and /**lízíßîlè**/ [_-^_] (he having called—participial perfect tense)

22. The crescendo of /H/s in sequence takes place across word boundaries within primary units of syntactical immediate constituents.

/**ítí íphélílè**/ [¯˙¯˙¯˙¯_] (the tea is finished)
/**sâkhèthá ísìBúlù**/ [_¯˙¯-/_] (we chose Afrikaans)
/**ísìfúßá sám**/ [¯_¯˙¯-¯-] (my chest)
/**ùlímá náwè**/ [_¯˙¯˙¯-] (he ploughs with you)
/**ôßàwó ßáyàßéthà**/ [_¯˙¯_¯_] (our fathers are hitting)
/**íntó yákhò**/ [¯˙¯˙¯-] (your thing)

23. The sequence /HH/ which corresponds to /FL/ in utterance-final position, or word-final position in slow deliberate speech, is unmarked by any upstep and when preceded by another /H/ will be slightly lower in pitch than that /H/. This is the second exception to the rule that downsteps do not occur in sequences of /H/s.

/**úmkhónó ómdè**/ [¯_¯˙¯-_] (long sleeve)
/**úfúdó ólùdè**/ [¯-/¯-_] (long tortoise)
/**éhlólá kàkhûlù**/ [¯˙¯˙¯__] (he examining widely—participial present tense)

In isolation or utterance-final position these nouns are: /**úmkhônò**/, /**úfûdò**/, **éhlôlà**/.

24. As a corollary to factor 4, it may be stated that "a sequence of /L/s always proceeds at approximately the same pitch level and no tonal steps occur within the sequence", e.g.

/**sìbèkìlè**/ [_____] (we have looked at)
/**ésínzùlù kàkhûlù**/ [¯˙¯____] (very deep —class 7 reference)

Factor 4. *A low toneme between two high tonemes tends to be raised by assimilation.*

25. The following comparisons illustrate this process of tonal assimilation:

/**úßúßìní**/ [¯˙\-] (two), cf. /**úßúhlòßò**/ [¯˙_] (friendship)
/**índlèßé**/ [¯_¯˙] (ear), cf. /**índlàlà**/ [¯_¯_] (famine)
/**ízìfúndò**/ [¯_¯˙]¹ (lessons), cf. /**úzìphò**/ [¯_¯_]¹ (nail)

N.B.—The falling glide in /**úßúßìní**/ is tonally higher than that in /**úßúhlòßò**/ and is less distinctive as a glide.

The process is less evident when /L/ between two high tonemes coincides with a depressor consonant, e.g.

/**ísìfúngò**/ [¯˙¯˙¯_] (oath), cf. /**ízìfúngò**/ [¯_¯˙¯_] (oaths)
/**àlìyíkhèthángà**/ [_¯˙¯_¯˙¯_] (he has not chosen it), cf. /**àlìyívàlángà**/ [_¯˙¯_¯_] (he has not shut it)

The influence of factor 5 on a syllable introduced by a non-depressor may result in

¹The second syllables should be compared.

the realization of /L/ at a pitch level quite as high as /H/ in an immediately succeeding step, e.g.

/**úkùnyúkà**/ [¯--_] (to ascend)
/**úm̀fúndìsi**/ [¯--_̲_̲] (preacher)

E. Summary of Influences

26. It is clear from previous discussion that any one of the three tonemes of Xhosa may be realized at almost any level within the pitch range of the speaker. A number of factors, either individually or in combination, determine the level at which a toneme is actually realized. First, there is hardly any toneme which escapes the influence of the five conditioning factors described in section D. The influence of these five factors is tonemically significant and produces allotones within tonemes. Secondly, there are various influences which affect complete utterances or long stretches of speech within utterances.

Intonation contours or levels and the emotional background to the utterance both represent a type of influence which results in the raising or lowering of whole stretches of speech and affects both high and low tonemes equally and in the same way. Such changes have been referred to as changes in "key" and, in that they do not disturb contrasts between tonemes or the shape of individual allotones, these are regarded as tonemically non-significant. There are, however, similar influences affecting complete utterances or long stretches of speech, which may well be treated as of tonemic significance, in that they may not affect both high and low tonemes in exactly the same way.

The factor of rapid tempo, for example, tends to diminish the pitch interval between /H/ and /L/, and its effect on glide allotones (producing very short level tones near the commencement of the glide) has been discussed at § 13. Of somewhat similar nature are the factors of breath-group duration and position within the breath-group. Contrasts between high and low tonemes are always most prominent in words uttered in isolation. The pitch interval between these tonemes diminishes as the breath-group is extended and there may, in fact, be no discernible pitch interval between high and low tonemes at the end of a long breath-group.

It is possible, therefore, to provide additional levels of tonemic analysis associated with tempo and breath-group duration and position within the group. Analysis at these levels has, however, not been attempted in this paper.

APPENDIX

The Identification of Tonemes from Tonetic Data

It will be apparent that, owing to the extensive distortion of tonemic norms by environmental influences, there are tones in most utterances whose tonemic identity is not immediately obvious. The development of a definite technique in the interpretation of such tones, based on principles and data already presented in this paper, is therefore necessary.

The first and most obvious of three main procedures is (*a*) *the inspection and immediate identification of tonemes*. For example, the contrast between /H/ and /L/ may be of sufficient acoustic prominence to ensure their immediate recognition. This condition is likely to prevail within a single tonal step in which /H/ coincides with non-depressor(s) and /L/ with depressor(s), e.g. /**indlela**/ [¯_̲_̲] (route, road) interpreted as /HLL/. Gliding tones of certain shapes can also be identified immediately, viz. [⸝] and [^] (which always coincide with depressor consonants). These glides are allotones of /H/ and /F/ respectively, only these two tonemes having allotones of these shapes.

In any utterance, however, only a limited number of tones will yield to immediate identification and many "mid tones"[1] and falling glides will present problems of identification. The practical application of our knowledge of the five conditioning factors accounts for many mid tones, but the

[1]In order to provide a thoroughly practical approach to toneme identification, our technique is correlated with the terminology of "popular tonetics" in this appendix.

distinction between a falling glide as allotone of /L/ (coinciding with a non-depressor and preceded by a high toneme) and the tonetically similar allotone of /F/, is not always easy. An immediate contrast between nearly minimal pairs such as /**úkúsìthà**/ [˝˜_] (to screen) and /**úkùsîkà**/ [˝˜_] (to cut) usually distinguishes the phonemic from the non-phonemic glide by the higher starting point of the former and bigger interval between end points; but this distinction cannot be made with certainty in examples from connected speech. For the correct identification of many mid tones and glides, therefore, resort should be made to procedures: (*b*) *Toneme identification on a tono-morphological basis;* and (*c*) *reducing the rate of utterance.*

The success of procedure (*b*) rests upon the fact that having placed a form in its particular tono-morphological group (e.g. the placing of /**úkùsîkà**/ with the /FL/ group of disyllabic verb stems) its toneme pattern in any inflexional or derivational subcategory can be predicted from the toneme pattern of any other disyllabic verb of the same group in the same morphological category. In other words, our data suggests that no further breakdown into tono-morphological groups occurs after the tonal classification of basic forms such as verb infinitives, singular nouns, etc., when such forms are passed through various inflexional and derivational subcategories.[1] Procedure (*b*) does not necessarily presuppose a complete analysis of tonal grammar before its application. In certain cases of tones of doubtful tonemic association, for example, it is useful to substitute a form of the same tono-morphological group so that a depressor takes the place of a non-depressor and vice versa. For example, /**indaba**/ (affair) and /**indoda**/ (man) are known to be of the same tono-morphological group of nouns with disyllabic stems, viz. /LL/. In the locative adverbial form /**endaba**/ [˝˄_] the 3rd tone is difficult to identify tonemically (the falling glide may be the raised allotone of /L/ or the "normal" allotone of /F/). The same inflexion applied to /**indoda**/ produces the pattern [˝/__] in which the 3rd tone can be identified immediately as /L/. This type of substitution which brings a non-depressor into a position previously occupied by a depressor (and vice versa) is a useful procedure, the only requirement being that substitution involves forms of the same tono-morphological group.

As the analysis of tonal grammar is advanced, of course, the interpretation of doubtful tones according to the toneme pattern of the particular tono-morphological group in the particular morphological category becomes a normal procedure.

Procedure (*c*), which is essentially a field procedure, is associated with the fact that in quick speech the pitch interval between high and low tonemes tends to diminish and glides are heard as level tones. The usefulness of this procedure lies mainly in the restoration of phonemic and non-phonemic glides and their subsequent interpretation as such. In applying this procedure, the change of stem-final /FL/>/HH/ must be borne in mind. /FL/ is likely to be restored when the rate of utterance is slow and approaches "slow dictation speed".

Whether phonemic and morphological analysis should be based on speech at rapid or slow tempo is a point of some contention. With regard to tonemic analysis in Xhosa, the quick speech of ordinary conversation would, however, provide an entirely unsatisfactory basis for tonemic analysis. Once again the reason for this is the absence of any distinctive sound feature associated with individual tonemes. As a result, contrasts between high and low tonemes can, in quick speech, be completely obscured and either may be realized by a tone of the same pitch level in the same environment. In these circumstances also, glide allotones are heard as short level tones. To treat this phenomenon as tonemic substitution correlated with rate of utterance (which is itself difficult to measure) can, at the best, only result in extremely complex statements regarding the

[1] In §10(*c*) one tono-morphological group of nouns is shown to have two possible toneme patterns when inflected to form locative adverbs. This is a rare exception and the occurrence of the one toneme pattern is, in any event, very restricted.

substitution of tonemes or toneme patterns which would obscure the fundamental facts of tonological structure. There is only one sound basis for first analysis and that is slow deliberate speech in which distinctive contrasts between tonemes are drawn to the full.

The following exemplify the application of the procedures referred to above:

(*a*) /**umβono**/ [¯-_] (or, high mid mid-(or high-)falling low)

The first two tones of the prefix should be sufficiently contrastive to establish a prefix pattern /HL/. Even if they are heard at almost the same level, the only other alternative /HH/ should be ruled out by the absence of crescendo. The rule of dissimilation across the morpheme boundary thus determines the 3rd tone as /F/. Contrast, however, /**umpheki**/ [¯-_] (or, high raised-high mid-(or high-)falling low. Here the interpretation of the glide can only be as /L/ directly the /HH/ pattern of the prefix is identified.

(*b*) /**inkaβi**/ [¯_] (or, high mid-(or high-) falling low) and /**intambo**/ [¯_] (or, high mid-falling low).

The tono-morphological classification of these nouns presents a problem. The crucial aspect of the interpretation is that of the glide on the second syllable. The inflexion of these nouns to form locative adverbs (procedure (*b*)) produces the patterns /**enkaβini**/ [¯-¯_] and /**entanjeni**/ [¯¯__], i.e. /HLHL/ and /HHLL/ respectively, which places /**inkaβi**/ with disyllabic nouns of stem pattern /FL/ and /**intambo**/ with those of stem pattern /LL/.

(*c*) /**masikhwele**/ [_-\-] (or, mid high mid-falling mid).

The interval between the first and second tonemes is usually sufficient to indicate a contrast between /L/ and /H/ and does not suggest a crescendo of successive /H/s. The glide on the 3rd syllable, however, poses the problem of "phonemic or non-phonemic glide?". Examination of the present subjunctive tense of the tono-morphological group to which /**-khwela**/ belongs, establishes the tense pattern as /HLH/ and, therefore, the pattern of /**masikhwele**/ as /LHLH/.

(*d*) /**ihlathi lilapha**/ [¯--¯¯_] (or, high mid mid high high low).

/H/ on the 1st, 4th and 5th syllables is usually quite distinct. Similarly the final tone is clearly /L/. Procedure (*c*) can be tried to see if any glides or level tone contrasts obscured by the short duration of syllables can be restored. The application of this procedure yields no modifications of the mid tones except that if speech is reduced sufficiently in tempo the pattern [¯_-¯_] or "high high-falling low (or mid) high high low" will emerge. This is clearly an instance of the substitution /FL/>/HH/ and establishes the toneme pattern of the utterance as /HHHHHL/. Procedure (*b*) could also be applied to /**ihlathi**/, but the removal of a word from its context in the process of establishing its toneme pattern, is accompanied by the risk that the pattern may change between the word in isolation and its use in a particular syntactical position.

Postscript

An occurrence of a non-predictable long vowel with a sustained high tone has come to light since the completion of this paper (Vide § 5). It is found in the first syllable of /**lámádòdà**/ [¯__] (those yonder men) and /**lámádòdà**/ [-¯__] (these men) provides an excellent contrast with it. This is a rare example, but necessitates, nevertheless, a re-assessment of the data presented in this paper regarding the possible interpretation of the significant falling glide as /HL/ rather than /F/.

SCRIPTURE TRANSLATION INTO BANTU LANGUAGES

C. M. DOKE*

SYNOPSIS

A survey of Scripture translations in the Bantu field, with accounts of the work done in a selection of languages and of the pioneer missionaries who carried it out. The first Scripture translations into Bantu languages were produced in the 17th century, but the first New Testament appeared only in 1840 and the first complete Bible in 1857, both the latter being renderings into Tswana (Tlhaping) by Robert Moffat. Up to 1938, 89 Bantu New Testaments and 25 Bibles had appeared, which totals amount to two-thirds of the corresponding figures for the whole of Africa. Chronological tables show the order of publication of these Bantu translations. Since 1938 the numbers of translations have increased to 105 New Testaments, 38 Bibles and 183 Portions, at the end of 1957.

Accounts are given, with notes on the translators, their experiences, and the problems they encountered and overcame, of the translations into Tswana, Xhosa, Duala, Southern Sotho, Zulu, Swahili, Ganda, Kongo, Nyanja, Union Mongo-Nkundu, Union Mambwe-Lungu, Union Omyene, Union Shona, the Luba languages and dialects, and Venda. A few of the more prominent names associated with these translations are Robert Moffat, W. B. Boyce, J. W. Appleyard, Alfred Saker, J. L. Krapf, E. Steere, G. L. Pilkington, K. E. Laman, Mrs A. E. Ruskin, U. Teisserès, Mrs A. A. Louw, A. A. Louw, jnr., W. M. Morrison and P. E. Schwellnus.

The Bantu languages play a very important part in the vast programme of Bible translation throughout the world, sponsored by the Bible Societies, of which the most outstanding are the British and Foreign Bible Society and the American Bible Society. In 1938 Dr E. M. North of the latter Society published a valuable and interesting work entitled *The Book of a Thousand Tongues*, in which textual illustrations of over 1,000 translations of Bibles, Testaments or Portions were given facsimile, with much valuable information upon translators and varied versions. In 1939 Dr R. Kilgour of the British and Foreign Bible Society published *The Bible Throughout the World*, a most informative survey of scripture translations, in which he devoted Chapter III (pp. 33-99) to Africa. In neither of these works, however, are Bantu languages differentiated, as such, from other African languages. When such differentiation is made the following position is revealed, shewing the figures up to 1938 (though incomplete for that year):

Some portion of the Bible had been published in 170 Bantu languages[1], the New Testament in 89 and the Complete Bible in 25[2]. Compared with the whole of Africa and the whole world the figures were:

	World	Africa	Bantu
Portions ..	1008	345	170
New Testaments	389	127	89
Bibles	179	37	25

In other words, up to 1938, nearly one-quarter of the world's New Testaments[3] were Bantu and nearly one-seventh of the world's Bibles; one-sixth of the world languages in which portions were translated were Bantu, while the Bantu translations numbered half of those in Africa. This is a notable achievement of translation work.

Before discussing any of the translations it will be well to list the languages in which

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[1]Or dialects, as this distinction has not been clarified here.

[2]There are of course further additions to these figures since; and some further information correcting these figs.

[3]This would not apply if variant versions were considered.

New Testaments and Bibles have appeared.[4] These are given in chronological order of first appearance, and bring the record up to 1957, admitting some omissions.

Order of publication of Bantu New Testaments

1. Tswana (Tlhaping) 1840
2. Xhosa 1846
3. Sotho (Southern) 1855
4. Duala 1861
5. Zulu 1865
6. Benga 1872
7. Herero 1879
8. Swahili (Zanzibar) 1879
9. Ndebele 1884
10. Nyanja (Western) 1886
11. Sotho (Northern) 1890
12. Kongo (Fiote) 1891
13. Omyene (Mpongwe) 1893
14. Ganda 1893
15. Kongo (San Salvador) 1893
16. Tswana (Rolong) 1894
17. Thonga 1894
18. Tonga (Inhambane) 1897
19. (u)Mbundu 1897
20. Yao 1898
21. Nyanja (Eastern) 1898
22. Gogo 1899
23. Mambwe 1901
24. Pokomo 1901
25. Ndonga 1903
26. Tswa 1903
27. Ronga 1903
28. Luba-Sanga 1904
29. Nyoro 1905
30. Taveta 1906
31. Union Nyanja 1906
32. Shona (Zezuru) 1907
33. Omyene (Galwa) 1907
34. Mongo 1908
35. Shambala 1908
36. Konde (Nyakyusa) 1908
37. Giryama[5] 1908
38. Shona (Manyika) 1908
39. Swahili (Mombasa) 1909
40. Nyamwezi 1909
41. Tumbuka 1911
42. Luna-Inkongo 1911
43. Bangi 1912
44. Nyika (Nyasa) 1913
45. Ngombe 1915
46. Sengele 1915
47. Ila 1915
48. Bemba 1916
49. Kele (Congo) 1918
50. Lunda (Kalunda) 1918
51. Ndau 1919
52. Shona (Karanga) 1919
53. Union Omyene 1919
54. Kamba 1920
55. Luba-Lulua 1920
56. Heso 1920
57. Bena 1920
58. Tonga (Nyasa) 1921
59. Union Mongo-Nkundu 1921
60. Lamba 1921
61. (ki)Mbundu 1922
62. Union Mambwe-Lungu .. 1922
63. Dabida 1922
64. Asu 1922
65. Nsenga 1923
66. Venda 1923
67. Luba-Katanga 1923
68. Sukuma 1925
69. Kololo (Lozi) 1925
70. Bulu 1926
71. Gikuyu 1926
72. Kwanyama 1927
73. Fang (Ogowe) 1927
74. Chokwe 1927
75. Lwena[6] 1928
76. Ragoli 1928
77. Ngala (Wele) 1928
78. Haya 1930
79. Lomwe 1930
80. Ruanda 1931
81. Namwanga 1933
82. Lunda (Kambove) 1933
83. Pende 1935
84. Luchazi 1935
85. Nkoya 1936
86. Bolia 1936
87. Nyore 1936
88. Manda 1937
89. Tetela 1937
90. Ngwana (Ituri) 1937
91. Luba-Kaonde 1938
92. Ngwana (Lualaba) 1939

[4] These do not exactly tally with Dr North's lists, for instance: Ndonga *Bible* appeared in 1936; Ngwana Ituri *N.T.* is transferred from 1927 to 1937.
[5] The Old Testament was published in 1901.
[6] A second version was printed privately.

93. Hanga 1940
94. Union Shona 1941
95. Ngandu 1941
96. Lingala 1943
97. Jita 1945
98. Bobangi 1947
99. Kongo (Kituba) 1947
100. Kisii 1949
101. Tonga (Rhodesia) 1949
102. Kwango 1951
103. Rundi 1951
104. Meru 1953
105. Congo Swahili 1955

Order of publication of Bantu Bibles

1. Tswana (Tlhaping) 1857
2. Xhosa 1859
3. Duala 1872
4. Sotho (Southern) 1881
5. Zulu 1883
6. Swahili (Zanzibar) 1891
7. Ganda 1896
8. Sotho (Northern) 1904
9. Kongo (Fiote) 1905
10. Thonga 1907
11. Giryama 1908
12. Tswa 1910
13. Nyanja (Eastern) 1912
14. Nyoro 1912
15. Swahili (Mombasa) 1914
16. Kongo (San Salvador) 1916
17. Yao 1920
18. Union Nyanja 1922
19. Ronga 1923
20. Luba-Lulua 1927
21. Union Omyene 1927
22. Luna-Inkongo 1927
23. Luba-Sanga 1929
24. Union Mongo-Nkundu 1930
25. Venda 1936
26. Ndonga 1936
27. Bulu 1940
28. Shona (Union) 1949
29. Ragoli .. .. ?1950
30. Kikuyu 1951
31. Luba-Katanga 1951
32. Fang 1951
33. Lozi 1951
34. Bangala 1953
35. Ruanda 1955
36. Ngala (Wele) 1955
37. Bemba 1956
38. Ndau 1957

The following summary of Bantu Scripture publications by decades is informative:

	Portions	New Testaments	Bibles
1821-1830 ..	1	—	—
1831-1840 ..	2	1	—
1841-1850 ..	9	1	—
1851-1860 ..	1	1	2
1861-1870 ..	2	2	—
1871-1880 ..	6	3	1
1881-1890 ..	18	3	2
1891-1900 ..	30	11	2
1901-1910 ..	30	18	5
1911-1920 ..	31	17	5
1921-1930 ..	17	22	7
1931-1940 ..	29	14	3
1941-1950[7] ..	6[8]	8	2
Since 1950[8] ..	1[8]	4	9
	183	105	38

* * *

The story of this achievement of translation work, if written, would constitute a stirring romance. It will never be realized what privation, intensity of purpose, continued study, painstaking labour and pious devotion all this has meant, often in unhealthy climate, amid active opposition, with weak equipment or lack of support. A story could be written of every one of these translations. We must content ourselves with but a few references however.

Probably the first printed portion of God's Word to appear in a Bantu language is to be found quoted in Cardoso's *Doutrina Christãa*[9] of 1624, the first Bantu book, with interlinear Portuguese and Kongo translation. In 1643 appeared the Mbundu catechism[10]

[7]From 1941 onwards information is practically confined to B.F.B.S. publications. Numbers were greatly reduced during war and post-war years.
[8]Figures incomplete.
[9]See "The Age of Brusciotto", *Bantu Studies*, 9, p. 87.
[10]Ibid., p. 89.

of Pacconio and de Couto, and this is how they render "The Lord's Prayer":

Tat'etu üecâla co máulu, accondeque o rigína riâe, heze co tuecâla o quifûchi quiâe: acuzéleʃe o muchíma üae inga boxi, inga béulu: O muʃʃa üetu üa izúa yeʃʃe tubéo rieríno: tuéquie o macongo etu inguéqui tuéquia anha aturià o macongo: cutuéquie pè curigia mo quituxi; tubánguelebó mo quiaíba. Egúè Ieʃu.

But these early books of the "Age of Brusciotto" contain only scattered passages of quoted scripture.

* * *

The earliest published book of the Bible was Robert Moffat's translation of *Luke* into the Tlhaping dialect of TSWANA, published in 1830. Robert Moffat (1795-1883), apprenticed to a gardener, was accepted for missionary work by the London Missionary Society in 1816 and reached Cape Town early the following year. After working in Namaqualand he settled at Kuruman in 1821. Here he laboured in all the varied occupations of a pioneer missionary and included the translation of the whole Bible among his many tasks. Moffat had never been trained as a linguist, and he came up against the intricacies of Tswana long before Boyce, in 1834, expounded his "Euphonic concord". Bleek, "the Father of Bantu Philology" was not born until 1827. Moffat was very slow in learning the language. For some years he preached in Dutch, which he had learned, and used interpreters. Nevertheless in 1826 he published[11] a little 35-page catechism, which was one of the first books published in Tswana. He evidently had no method in tackling the language[12], and, as far as is known, wrote no grammar or vocabulary. Archbell's grammar (in imitation of Boyce) did not appear till 1837. Moffat felt the need of mastering the language, and in 1827 went away from Kuruman for two months to live among the Africans. He came back able to preach in excellent "Sechuana". Soon after this he translated *Luke's Gospel*, and "in June 1830 he and Mrs Moffat travelled to the Colony, in order to put their elder children to school and to get the Gospel of St Luke printed. As there were no printing facilities in or around Grahamstown, where a school was found, Moffat put the manuscript in his pocket and rode four hundred miles to Cape Town, in search of a press. Difficulty was met there too, owing to what Moffat calls the infant state of typography in that place. He was forced at last to ask the assistance of the Government, and both from Sir Lowry Cole, the Governor, and from Colonel Bird, the Government Secretary, he received a ready response to his request for the use of the official printing office. The press was small, and the staff consisted, it seems, of one printer, Mr van de Zandt. There was nothing for it but to learn printing, and to this Moffat and Edwards (a new recruit for the Bechuana Mission who had now joined Moffat in Cape Town) set themselves with ardour. The paper, with a grant of £50 towards incidental expenses, was given by the British and Foreign Bible Society. It was under these circumstances that the first complete Gospel for the Bechuana was produced".[13]

When Moffat returned to Kuruman it was with a printing press which was operated mainly by Edwards. By 1838 he had completed his first draft of the *New Testament*, and in commenting on this he wrote[14]: "The Sechuana language, though exceedingly copious, is of course deficient in theological terms. . . . This at first occasioned considerable difficulty; but research has convinced me, that the language itself possesses an ample source of suitable words to convey with wonderful clearness, the language and meaning of the Scriptures." This is a conclusion to which all translators of the Scriptures into Bantu languages have come.

Moffat was a most conscientious translator. He stated: "I have studiously avoided giving

[11]Printed for the L.M.S. by J. Dennett, Leather Lane, Holborn.
[12]See E. W. Smith, *Robert Moffat, One of God's Gardeners*, 1925, p. 171.
[13]Ibid., pp. 172, 173.
[14]Moffat to the Bible House, London, from Kuruman, 3rd July, 1838.

the slightest tinge to any rendering in favour of any creed." On another occasion he averred: "I felt it to be an awful thing to translate the Book of God".

It was David Livingstone, sailing on Dec. 8th 1840, who took to Africa the first five hundred copies of the Tswana New Testament. Moffat continued his translating—*The Pilgrim's Progress* was printed in 1848—and eventually in 1857 saw through the Mission press the complete *Bible* in Tswana. "In the famous library at the Bible House in London there is a memorial window figuring great translators: William Tyndale, Jerome, Cyril and Methorius, Martin Luther, John Eliot, William Carey, Robert Morrison, Henry Martyn, and—Robert Moffat, who takes his place naturally in the far-shining company, most of whom were greater scholars than he, but none of whom surpassed him in single-hearted devotion."[15]

In addition to his own careful revision, those by other missionaries have since been made, but it is a known fact that Moffat's version is still preferred by a great many of the Tswana.

In his work Moffat used the Tlhaping dialect. A version of the *New Testament* appeared in another Tswana dialect, Rolong, in 1894, the translation being that of W. Crisp.[16]

* * *

XHOSA was the second Bantu language to receive the complete *Bible*. Though John Bennie[17] had done Ms. translation in the early 'twenties[18], the first published Xhosa translation was *Luke's Gospel* brought out by William B. Boyce[19] and Barnabas Shaw in 1833, and printed at Grahamstown. A number of other missionaries, including Ayliff[20], Shrewsbury, Dugmore and Döhne[21] contributed to the *New Testament* which, though completed in 1838, was published in 1846. J. W. Appleyard, who made such a prominent contribution to Xhosa grammatical[22] study and in the realm of comparative Bantu philology[23], was well qualified for the task of Bible translation, having mastered Hebrew, Greek, Latin and Dutch. In 1854 he brought out his revision of the *New Testament* in Xhosa, which practically amounted to a new translation. In June 1859 he finished translating the whole *Bible*, though some of the Old Testament books had been translated by other missionaries[24]. This was a great achievement and one well received by the Africans. The *Old Testament* was printed at Mt. Coke Mission, Kaffraria. A revision of the whole *Bible* was subsequently published by the British and Foreign Bible Society in 1864.

About this time, however, translational criticism arose, and missionaries of the Scotch and German societies met at King William's Town, and condemned Appleyard's translations, publishing a pamphlet at Lovedale entitled *Rev. J. W. Appleyard's Version Judged by Missionaries of Various Denominations and Others*, and "containing the severest strictures on the translation". Among those who contributed to this attack were Revs. Tiyo Soga, J. A. Chalmers, J. L. Döhne, A. Kropf, J. Bennie, Bryce Ross, Richard Ross, and Mr John Bennie. In 1867 Appleyard published a 200-page reply entitled *An Apology for the Kafir Bible*. This was printed at Mount Coke. The details of this controversy cannot be gone into here. But, after reading through Appleyard's 'Apology', one cannot but feel that he amply vindicated his translation. Most of the arguments of the critics, as for instance Soga, were based on translating from the English A.V. Appleyard may have erred in his too close an adherence to the Greek and Hebrew, some-

[15]E. W. Smith, *Robert Moffat*, idem. p. 245.
[16]See C. M. Doke, *Bantu: Modern Grammatical, Phonetical and Lexicographical Studies since 1860*. p. 92
[17]See *Bantu Studies*, vol. 14, pp. 216-218.
[18]I have a Ms. portion of *Acts* probably translated before 1825.
[19]For an account of Boyce's linguistic work in Xhosa, see *Bantu Studies*, vol. 14, pp. 218-219.
[20]Ibid., p. 223.
[21]Ibid., pp. 232-234.
[22]Ibid., pp. 223-226.
[23]See *African Studies*, vol. 2, pp. 46, 47.
[24]Döhne did *Psalms*, Shrewsbury *Isaiah*, Garner *Ruth*, Warner *Proverbs*, and Kropf *Judges* and *Samuel*.

times straining Xhosa idiom. He was certainly ahead of his day in principles of Bible Translation. His critics, on the other hand, were prepared to take liberties in translating rather than to intrude any awkward phrases. It was overlooked that many of the criticisms levelled at Appleyard were of passages which he had taken over unchanged from current published Scripture. Appleyard stood firm against "theological interpretation" (p. 73); "a translator must keep to the language of his original, and not expound its meaning" (p. 99). Certainly Appleyard did, at times, coin from Xhosa verbs nouns not in current use. It is a risky business (cf. foot of p. 73); he should have used the infinitive. Later it was decided to form a committee, including Appleyard, to revise the Bible, using his work as a basis. Appleyard, however, died before the full functioning of this committee, and so did Soga; the committee then proceeded to an entirely new translation. This became known as the "Revised Version", of which the *New Testament* appeared in 1875 and the *Bible* in 1889. Since then the *"Re-revised" New Testament* was published in 1903 and *Bible* in 1906. There is still, however, a very warm affection held by many Africans and missionaries for Appleyard's version.

The whole *Bible* was later issued in the 1935 Orthography, and the preparation of this version will ever be associated with the name of Dr W. G. Bennie, grandson of one of the earliest of Xhosa translators.

* * *

DUALA claims distinction as being the third Bantu language into which the whole *Bible* was translated. As with the Tswana, so with the Duala the work was that of one man—Alfred Saker, Baptist missionary to the Cameroons. Saker's grammatical work has already been noticed[25]; but it was to Bible translation that he devoted his consecrated life. As early as 1846 Saker wrote, "I have made the study of the language my special work, and although I cannot say much as to the advance which I have made yet I hope it is something; and I hope more, that I shall live to translate the whole Bible into the Dualla tongue. With Divine assistance I have a settled purpose so to do, and I hope not to relinquish my work till it is done". Not only did Saker undertake the translating and the printing of the Scripture but by his own invention, aided by his knowledge of iron work and engineering, he cut a matrix and constructed a rude printing press, though he had to wait long for type. The first Gospel he published was *Matthew* in 1848; the *Four Gospels and Acts* followed in 1855, *Romans-Hebrews* in 1857; and the whole *New Testament* in 1861. *Psalms* had appeared in 1859; *Genesis*, *Exodus* and *Leviticus* in 1862[26], and the whole *Bible* was set up in print in 1872. Saker's health in the venomous climate of West Africa had suffered severely: he was repeatedly prostrated by attacks of fever. The following quotation from letters of his are worthy of record for the note of triumph they strike. In his last letter of 1868 he wrote: "The year's toil is over. Through God's manifold mercy I have completed the translation of the entire Bible, with the exception of a few chapters of Chronicles, which are so nearly like parts of the Books of Kings that I omitted them till other books were finished. Those chapters I shall not write till next rains, as in the months of January and February I must be out in the country and towns adjacent. You are aware that, after my recovery in February last, I sought to print the revised 'Acts of the Apostles', and then the Psalms. This done my health emboldened me to resolve on the translation of all the remaining books of the Old Testament, and I am exceedingly thankful that God has helped me to go through it, although I have suspended nearly everything else, except the preaching, for this one work. Some books have given me great trouble. There are constructions in Ezekiel which I cannot even now understand sufficiently to render into intelligible sentences; even the English rendering I do not understand. If a few things in the 'Acts' wearied my brain for hours, Ezekiel has held

[25]See *Bantu Studies*, vol. 14, pp. 240-241.
[26]These are the dates in copies of these publications in my possession. [C.M.D.]

me for days. Some of his words I must read and read again ere I can print".

On February 23rd 1872, Saker announced the completion of the task: "I write you a line today with sensations of great joy. The great work of years is now completed, and I feel as a bird long imprisoned, liberated at last, with permission to fly and enjoy the glories of an open sky. I feel too much joy to express it in a few words. While I write this, do not think that the labour is all over and gone. There is yet much labour before us. Nevertheless the victory is gained. The great work of getting into type this priceless boon to this country is now completed. The last sheet of the Sacred Volume, in good and readable type, is before me. There yet remains the task of reprinting such books as are much needed, and then binding the whole in one volume. Our Bible will then be in three volumes — the Pentateuch, this volume, Joshua to Malachi, and the New Testament. This is mechanical toil, and will be done by my worthy helpers. Having thus prepared a tool, my own work henceforth will consist chiefly in preparing a body of young men and women to use it well".[27]

A new edition of Saker's *New Testament* was seen through the press by his daughter, Emily Saker, in 1882; while several revisions have been made by German missionaries, one of which, **Male ma peńa,** was published at Stuttgart in 1909. Writing of the 1882 edition, A. Seidel, the Bantu scholar, made the following appraisement:

> "Saker's translation of the New Testament is a standing monument to the untiring industry and gift of languages of this self-sacrificing messenger of Christian culture. However, the translation in its present form shews a great number of very important errors which urgently require revision. . . . Saker's orthography is generally very reasonable, and I have adopted it in principle".[28]

The latest edition of the Duala Bible, **Betiledi ba Bosangi,** was published by the British and Foreign Bible Society in 1956.

But Saker was not only concerned with Duala. In 1849 he had been associated with John Clarke in the production of *Matthew's Gospel* in BUBE, the language of Fernando Po Island; Clarke had published the first three chapters of this Gospel in England in the previous year. Then in 1852 Saker edited, after Merrick's death, the *Gospels and Acts* which the latter had translated into ISUBU. Joseph Merrick, a talented mulatto missionary hailing from Jamaica, in the short six years allotted to him in West Africa,[29] besides certain linguistic work[30], did noteworthy translation work into Isubu, *Matthew's Gospel* being printed in 1846, *Mark* and *Genesis* in 1847, *John* and *Selections from the Scriptures* in 1848.

* * *

The SOUTHERN SOTHO *Bible* is the result of the labours of many men, no one name seeming to stand out, in this connexion, with special prominence. Two of the three pioneers of the Société des Missions Evangéliques de Paris, E. Casalis and T. Arbousset, who arrived with Gosselin at Thaba-Bosiu, the headquarters of the Chief Moshesh in 1833, were associated in early translation work. After publishing a little catechism at the Cape in 1837, Casalis translated *Mark* and S. Rolland (who had established Beersèba Mission) *John*, which gospels were printed in 1839, as well as **Seyo sa lipelu** (Nourishment for the heart) a selection of fifty chapters from the Old and New Testaments, from the pen of Arbousset. Casalis and Rolland went on to complete the *New Testament*, which was printed by M. Ludorf at Beersèba in 1855. In the translation of the various portions of the *Old Testament* were associated T. Arbousset, E. Rolland, D. F. Ellenberger, J. Maitin, H. M. Dyke, A. Mabille, S. Rolland, L. J. Cochet and L. Duvoisin; the complete *Bible* being made available in 1878, though first published in a single volume in 1881. Several revised and corrected editions have since been published. Several of the names of these translators

[27]Much of this information is culled from E. B. Underhill's *Alfred Saker, Missionary to Africa*, 1884.
[28]A. Seidel in 1912 reprint of *Leitfaden der Duala-Sprache*, Foreword, p. iv.
[29]He died in 1849.
[30]See *Bantu Studies*, 14, p. 241.

have become great in the literary, educational, missionary and even political history of Basutoland. Eugène Casalis was the author of the *Etudes sur la langue Séchuana*[31], *Les Bassoutos* (1859) and *Mes Souvenirs* (1882). His name ranks high. Arbousset had produced in 1842 his *Relation d'un Voyage d'Exploration au Nord-Est de la Colonie du Cap de Bonne-Espérance.* Ellenberger was the author of *History of the Basuto, Ancient and Modern,* published in 1912. A. Mabille made his literary contribution particularly with his *Sesuto-English Dictionary*[32] of 1876, and his influence upon Basutoland was most profound.[33]

The publication of the Southern Sotho Bible has had a powerful influence in stabilising the language. With the early translations, as. V. Ellenberger put it, "Sesotho" became a literary language.[34]

* * *

In the preparation of the ZULU *Bible,* too, many translators took part. Newton Adams, pioneer of the American Board Mission in Natal, was responsible for the first Scripture publications in Zulu, *Extracts from Genesis* in 1846 and *Selections from the Gospels* in 1847; he also revised George Champion's translation of *Matthew* which was printed at Pietermaritzburg in 1848. J. C. Bryant,[35] J. L. Döhne[36] and C. W. Posselt, who all did other linguistic work in Zulu, contributed towards the *Psalms.* The whole *New Testament* was printed at Esidumbini in 1865, the work of various missionaries of the American Zulu Mission; and the whole *Bible* was published by the American Bible Society in 1883. Later the *New Testament* underwent revision, in 1872 by Andrew Abraham; again in 1878, and yet again in 1890, this time by David Rood.

The story of the Zulu versions is, however, not one of unanimity between the different missions. Döhne produced at Pietermaritzburg his own version of the *Gospels* in 1866 and of the *Acts* and *Romans* in 1867. But the theological differences which were so acute around the name of Bishop Colenso were really responsible for two further versions. Colenso[37] had made a number of Scripture translations quite distinct from the translation work of the American Board Missionaries. These were used, along with prayer and service books, in the mission work of the Church of England. Criticism was levelled at some of the translations, accusing the Bishop of interpreting according to his own belief. Dr Callaway, who at first worked under Colenso and who later separated from him and became Bishop of St. John's, was also "troubled with the Bishop's Scripture translations"[38], and proceeded to extensive translation work himself. Callaway, renowned for his *Nursery Tales of the AmaZulu* and his *Religious System of the Amazulu,* after translating the greater part of the *Prayer-Book* and having it printed in 1866, put out from his press at Springvale *Psalms* in 1871, and the *Prophets* in 1872; at St. John's Mission Press, Pondoland, *Genesis to Joshua,* 1871-1875; and the *Gospels* at Highflats in 1877. In 1869 Callaway wrote to Cornelius Hanbury: "I am getting on with the translation. You know, I suppose, that S.P.C.K. granted me £800 for printing the Bible and Prayer-Book in Zulu. I have a 'committee' of natives sitting on the translation! Each of the three natives has a translation by some one else in his hand, and I read ours, verse by verse. We do not get on very fast, but I am quite satisfied with what we have done. It corroborates me in the belief that hitherto nothing has been printed which at all approaches to what ours will be when completed." Callaway's translations were extremely good, though practically unknown today.

Colenso, too, completed a translation of the New Testament, **Izindab'ezinhle**—I

[31]See *Bantu Studies,* vol. 14, p. 221.
[32]See *Bantu: Mod. Gram., etc., Studies,* pp. 89-91.
[33]See *The Mabilles of Basutoland,* by E. W. Smith, 1939.
[34]See *Un Siècle de Mission au Lessouto,* p. 52.
[35]See "Bantu Language Pioneers", *Bantu Studies,* vol. 14, pp. 226-228.
[36]Ibid., pp. 232-234.
[37]See *Bantu Studies,* vol. 14, pp. 234-235.
[38]*Henry Callaway* by M. S. Benham, 1896, p. 115.

have before me a copy published in 1897 by Dent and Co. for Miss H. E. Colenso, the Bishop's daughter. This, also, is a very good translation. Colenso spoke scathingly of Callaway's translations, an attitude partly due, in all probability, to the bitterness of the controversy: but it was a pity that Colenso, accomplished Zulu scholar, found it difficult to acknowledge another's ability in Zulu.

But these translations do not end the duplication of Bible translation work in Zulu. Under the aegis of the American Bible Society a revision committee, consisting of J. D. Taylor, W. C. Wilcox and the Rev. Goba, produced a revised *New Testament* in 1917 and the *Bible* in 1924. Taylor's entire salary was paid at the time by the Bible Society, so that he could give his whole time to the work. This version, generally referred to as "Taylor's revised", constituted a thorough piece of work, though African conservatism as regards the Scriptures adheres to the older translation and "Taylor's revised" has not become popular. One concrete criticism levelled at it is that it contains many unusual words needlessly substituted for terms already sufficiently applicable. In the same year, 1924, the Hermannsburg Mission produced their own translation of the *New Testament*, also a good one, printed at Empangweni.

Apart from these F. Suter published seriatim in the *Native Teacher's Journal* (1933-1941) a delightful new translation of the *Psalms*, the latter part of which is in the 1931 Zulu orthography. It was not till 1956 that the New Testament was issued in that orthography, and now the orthography has been changed again!

The *New Testament* has also been translated into the NDEBELE dialect of Zulu. The first publication was *Matthew's Gospel* in 1884 translated by W. Sykes. The *New Testament* was completed by T. M. Thomas and printed, also in 1884, in Pretoria at the expense of Mrs Thomas (to whom the British and Foreign Bible Society later refunded the cost). The classic story, concerning this edition is that during the Matabele War of 1893-4, most of the 500 copies in storage at the time fell into the hands of the Matabele, who converted them into head-dresses. A new edition, revised by W. A. Elliott [39] and C. D. Helm, appeared in 1903, and a further revision by Helm in 1912. J. E. Whiteside translated the *Psalms* which was published in 1930.

In NGONI, the language of that famous Zulu fighting tribe which conquered the highlands west of Lake Nyasa, *Mark's Gospel*, translated by W. A. Elmslie, was published at Livingstonia in 1891. At least four editions were issued, but there does not seem to have been any call for the book during the last thirty years. The local Tumbuka language and the southern Nyanja are rapidly ousting the remains of Ngoni.

* * *

The name of Johann Ludwig Krapf[40] is an honoured one in the annals of African Bible translation. His earliest missionary experience had been in Abyssinia where he laboured from 1837 at Adowa. His studies, amid opposition and persecution which terminated in his expulsion from the country in 1844, were concerned with the Amharic and Ethiopic languages of the Semitic family (of which more presently), and while in the Shoa province with the southern dialect of Galla, a language of Cushitic type. In 1839 was published in London Krapf's translation of the first five chapters of *John* in Southern Galla, and in 1841 *Matthew*. After Krapf and his wife had been forced to leave Abyssinia, this intrepid missionary went to Mombasa with a view to using it as a port of entry to reach the Galla people from the south. Here he came in contact with Bantu peoples and his zeal for translating God's Word blazed up afresh. He soon mastered the coastal "Mombasa" Swahili, and translated, with the assistance of Ali bin Mohedin, the *Cadi* of Mombasa, the first three chapters of *Genesis*, which appeared in 1847 in the *Journal of the American Oriental Society*. After this Krapf continued his translation work in Swahili and between the years 1847 and 1853 he

[39] See *Bantu: Mod. Gram., etc., Studies*, p. 82.
[40] See *Bantu Studies*, vol. 14, pp. 242-244.

completed the *New Testament*. This was not published at the time, but the British and Foreign Bible Society lent the manuscript to Dr. Steere who used it as a basis in his translations into Zanzibar Swahili. Krapf was thus the father of the Swahili versions, which will be considered presently. Inland from Mombasa was what was called the "Nyika" (lit. "forest") country where a number of closely-related tribes lived. After publishing in conjunction with his colleague J. Rebmann a catechism in 1844 in the "Rabai" dialect, Krapf translated *Luke* which was published by the C.M.S. American Mission Press at Bombay. When prospecting further afield Krapf came into contact with another Bantu tribe, the Kamba, and in 1850 his translation of *Mark's Gospel* into that language was printed for the C.M.S. at Tübingen. Krapf's great vision was of a chain of mission stations across Africa from east to west. "This idea", he wrote, "I bequeath to every missionary coming to East Africa". He was a great pioneer missionary and explorer but increasing ill-health compelled his retirement in 1853 to Germany. This did not mean the end of his translation and other linguistic work. From 1860-1873 he was busy issuing his revision of the *Bible* in Amharic, the court language of Abyssinia. This meant a mastery of the difficult Amharic characters, a syllabic form of writing this Semitic language, based on the Ethiopic and Coptic scripts. Between the years 1874 and 1878 he edited a special edition of the *New Testament* in Ethiopic and Amharic for the Emperor of Abyssinia. His work in Galla, too, was not finished. His translation of *Luke* into the Central dialect, in Amharic characters, with the assistance of two Africans, Debtera Saneb and Roofo, was printed in Switzerland in 1870, and the whole *New Testament* in 1876, followed by certain Old Testament books. The Northern Galla *New Testament*, too, translated by Onesimus Nesib, was based on Krapf's Central Galla Version. In this Northern dialect the Bible was completed in 1899. Krapf may therefore be considered mainly responsible for the Galla Bible. Krapf died in 1881, "leaving behind him a name which must rank among the highest on the roll of those who have laboured for the redemption of Africa". So wrote the late Professor J. du Plessis[41], who went on to observe: "His achievements invite comparison with those of Livingstone. Livingstone was the greater traveller, but Krapf was the greater missionary. Livingstone spent more years in Africa, and wrote books which had a wider vogue; but Krapf did an infinitely larger amount of linguistic work, and was the greater missionary statesman. . . . Livingstone gave the impulse that led to the founding of the Universities' Mission and the Scotch Missions in Nyasaland; Krapf, of the Church Missionary Society and United Methodist work in East Africa, and of the later labours of the German Societies. The discoveries of Livingstone inspired Stanley and Cameron to continue and complete them; the discoveries of Krapf and Rebmann foreshadowed those of Burton, Speke and Baker. Both were found dead, kneeling at their bedsides—Livingstone in the heart of Africa, Krapf in his home at Kornthal; and both have left behind an imperishable memory". A tabulation of Krapf's translation work is a revelation:

Semitic:	Amharic—revision of the *Bible*.
	Ethiopic—editing of the *New Testament*.
Cushitic:	Galla—*Matthew* in Shoa dialect, and *New Testament* in Central.
Bantu:	Rabai "Nyika"—*Luke*.
	Kamba—*Mark*.
	Swahili—*New Testament*.

His achievement, in such circumstances, ranks him with Carey, the greatest of Bible translators, whose monumental work was concerned with so many Indian languages.

Nothing further was ever done in Rabai "Nyika", but Krapf's translation in Kamba was the forerunner of other work in that language until eventually the *New Testament* was completed in 1920, mainly due to the efforts of G. W. Rhoad.

* * *

The position of SWAHILI Scripture translation is fraught with considerable

[41] See *The Evangelisation of Pagan Africa*, p. 261.

difficulty. It has just been noticed that Krapf entered the Swahili field in the Northern area, and used the Mvita or Mombasa dialect for his translation work, completing the whole of the *New Testament* in that form. When Dr Edward Steere joined the Universities' Mission at Zanzibar in 1863 he bent his energies to the development of Unguja or the Zanzibar dialect of Swahili. Taking advantage of Krapf's N.T. draft in Mvita, which the British and Foreign Bible Society had placed at his disposal, he published first *Ruth* and *Jonah* (1868), then *Matthew* (1869), *Psalms* (1871), *John* (1875) and *Luke* (1876). The whole *New Testament* was completed by 1879 and revised by him and published in one volume in 1883. The *Bible*, to the completion of which F. R. Hodgson and other missionaries contributed, was published in 1891. *John* and *Matthew* were issued in Arabic character in 1888 and 1891 respectively. Steere's other linguistic work has been reviewed elsewhere[42]. He did not possess the great ability of Krapf, but was able to turn his linguitic talents to immediate practical ends. Of him Bishop Chauncey Maples wrote: "I should prefer to say of Bishop Steere that he was possessed of great linguistic ability, rather than to speak of him as a great linguist. His death in 1882 was a great blow to the Mission and its literary programme". There have been certain revisions of the New Testament, and regarding these Dr Kilgour writes[43]: "Before the Great War, a Berlin missionary, Martin Klamroth, attempted a new translation of the New Testament in a less Arabized Swahili. It was suggested that Swahili dialect spoken on the coast, when propagated in the interior, hindered an easy understanding of the Christian Gospel, since almost all religious terms were borrowed from Arabic. They had thus, it was stated, a definite Islamic background, and therefore were more or less unintelligible to the unsophisticated natives. After the War the Rev. Karl Roehl revised his translation, removing as far as possible all Arabic and Islamic importations. The version is described as in pure *Bantu Swahili*. Though an artificial language, it seemed to appeal to the inland Christians. This translation of the New Testament was published by the Württemberg Bible Society at Stuttgart in 1930. A similar version of the Old Testament was published in 1937."

Mvita, the Mombasa type, was further used in translations, after Krapf's retirement. Certain Old Testament books were translated by W. E. Taylor[44], the well-known author of *African Aphorisms*, in 1889; while a new translation of the *New Testament* was completed by H. K. Binns[45] of the C.M.S. in 1909. The whole *Bible* in "Mombasa" Swahili came out in 1914. Editions in Arabic characters of *Luke* and *John* were published in 1894 and 1897 respectively.

The controversy between the Unguja and Mvita claims to pre-eminence in Swahili continued long, and the efforts of the Standardization Committee have done much to ease the situation. In the translational sphere an attempt at standardization of the coastal forms was made by missionaries of the C.M.S. and the Universities' Mission by the issue in 1934 of *Luke* in Union Swahili. The close similarity of the two types is evidenced by the fact that frequently when stocks of the one have been low on the field the other has been used in its stead. In 1952 the whole *Bible* appeared in Union Swahili, and has been well received.

Away to the west of Lake Tanganyika, Swahili, as a trade language, had developed somewhat distinctly. It was known as Ngwana. In one variety of this Stapleton[46] published *Parables and Miracles from the Gospels* at Yakusu in 1905. C. T. Studd, the famous cricketer and founder of the Heart of Africa Mission, published some of the *Epistles* in 1925 and 1927, and the *Gospels* and *Psalms* in 1929 in this "Ituri" type; J.

[42]See *Bantu: Mod. Gram., etc., Studies*, p. 56.
[43]*The Bible Throughout the World*, p. 47.
[44]See *Bantu: Mod. Gram., etc., Studies*, p. 56. Taylor also translated *Luke* into Giryama in 1892, a language distinctive in that the *Old Testament* in 1901 preceded the full *Bible* publication of 1908.
[45]Idem., p. 55.
[46]See *Bantu: Mod. Gram., etc., Studies*, p. 19.

Lowder published *Matthew* in 1921; and the *New Testament* prepared by missionaries of the Africa Inland Mission and Immanuel Mission was published in 1937. The complete *New Testament* in "Lualaba" Ngwana was published in 1939. In the Ngwana area, too, efforts to standardize were made, and missionaries from seven missions combined to produce *Matthew* in Union Ngwana in 1934. In 1955 a real step forward was made with the publication of the *New Testament* in Congo Swahili.

Yet another Swahili version appeared in 1931 with H. P. Wilkes' *Mark* in Shamba or "Kitchen Swahili", a *lingua franca* spoken on the farms near Mt. Elgon, Uganda and Kenya.

It will require consecrated and statesmanlike genius to resolve the difficulties which have arisen with all these versions in the Swahili area.

* * *

While GANDA was the twenty-eighth Bantu language in which Scripture translation took place (1886), and while it was the fourteenth to have a *New Testament* (1893), it was the seventh to have the whole *Bible* (1896). So quickly did Bible translation go forward when once started in this important Northern Bantu language! The romance of missions is woven about it. We cannot do better than quote from Dr Kilgour[47].

> "The first sentences of Scripture ever written in the language of Uganda were dictated not by a missionary, but by a traveller, in order to give a heathen king some idea of the Christian religion. What a noble picture could be painted of this historic scene! H. M. Stanley and King M'tesa would be the centre of the group. In the Englishman's hand is Bishop Steere's version of St Matthew in Swahili, the principal speech of the coast. The Bible Society had published this translation in 1869. Ere Stanley left on his great adventure, David Livingstone's sister handed him a copy. He had to part with it shortly after he reached Uganda, for King M'tesa sent special messengers two hundred miles to bring it back as the traveller was leaving the country. Each one of these links has its fascinating interest; but to return to our picture. By Stanley's side there would be painted one of his boat's crew, Robert Feruzi, an African boy once at school in Zanzibar with the Universities' Mission to Central Africa. The traveller often used Robert to read Swahili and help in explaining Christian ideas to the inquisitive King. Together they made what Stanley describes as 'an abridged Bible in Ki-Swahili'. But they were also picking up the words of the new country they had reached. And one day when Idi, the King's scribe, was present (he, too, would have a prominent place in the picture), Stanley and Robert try to put into the mother tongue of the King the words of the Ten Commandments. Idi takes out his writing material, and puts down, for the first time in the native speech of Uganda, passages from God's Holy Word. The Bible and missions have bulked so largely in the development of the country that it is well to be reminded of this early historical fact and give credit to the noble traveller, not only for arousing the world's interest in Uganda, but for being himself the first to translate any part of the book into this African tongue.
>
> "A year later, in answer to Stanley's famous appeal of 1875, came the Church Missionary Society. And by 1880 that brilliant young Scottish engineer, Alexander M. Mackay, had reduced the language to writing, had printed lesson sheets on his little printing press from wooden types he had cut with his own hands, had translated the same Ten Commandments (there is no record of what happened to Stanley's version), some Psalms, and had begun a version of St Matthew's Gospel. Then came the troubles of 1885. Bishop Hannington was murdered in October; and yet in the midst of dangers and scares, 350 copies of the first sheets of the Gospel appeared in November. In 1887, the missionaries were again driven back, but the written Word

[47] *The Bible Throughout the World*, pp. 42-43.

remained, St Matthew in Ganda, and the New Testament in Swahili. Before he died in 1890, Mackay had trained two Baganda boys, Henry Wright Duta and Sembera Mackay, to share in translation work. Duta continued this task till he passed away, an honoured clergyman, in 1914. Another Baganda (*sic*), Mika Sematimba, slave boy, royal page, chief of the King's guard, afterwards an Elder in the Christian Church, took part in completing the New Testament. Then came the Old Testament in 1896. Many Baganda Christians helped in this and succeeding editions. Since then the version has passed through several revisions and been printed in many forms and sizes. Some 25,000 copies of Ganda Scriptures are required every year. The Bible is in the forefront of all mission work. The term 'reader' has come to mean 'Christian'. Every candidate for baptism must possess his own New Testament."

Dr North[48] points out that, owing to the early use of Swahili in Uganda, there was some Moslem influence on the first translations. Latterly there has been a movement away from that, for instance by the substitution of "Jesu" for "Isa" and "Kristu" for "Masiya": the region lay in the path where Islam's advance crosses the advance of the Gospel and its Book.

With Mackay in the translation of the first Gospel must be associated the name of R. P. Ashe, doughty pioneer and author of *Two Kings of Uganda*. The *New Testament* was mainly the work of G. L. Pilkington[49], assisted by Henry Wright Duta. This Pilkington saw through the press while on furlough. He had also translated a considerable part of the *Old Testament* while in Uganda. The minor prophets were contributed by W. A. Crabtree[50], and the remainder Pilkington carried out in Ireland with the help of notes made in Uganda, in association with Duta. Pilkington was a man of outstanding ability, and his sister's description[51] of his untiring work, hour after hour each day in his Irish home, is a picture of unlimited devotion to the completion of the tremendous task he had set himself to accomplish. It is to Pilkington, more than to any other man that the Baganda owe their Bible.

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With the close of the Nineteenth Century there were seven complete Bibles among the Bantu, all of which appeared within the last 43 years of the century. Since then, in the last 57 years, at least 31 complete Bibles have been issued, an average exceeding that of a Bible in a new Bantu language every two years!

* * *

We come now to the area where probably the earliest translation into Bantu[52] had ever been done—the KONGO area. Here dialectal differences have caused two different missions to produce separate versions of the complete *Bible*, while large portions were produced in a third dialect the use of which has now been discontinued. The history of these various versions is bound up with one of the most thrilling stories of missionary endeavour and sacrifice in all Africa. The stern fight against the dread fever of the Lower Congo made every advance most precarious, and the way was paved with the gravestones of the intrepid pioneers.

In what is called the "Cataract" dialect the pioneers of the Livingstone Inland Mission produced some *Selections* as early as 1882. After this work was transferred to the American Baptist Missionary Union, C. H. Harvey produced *Mark* in 1886, and later most of the *New Testament* and part of the *Old Testament* were translated by H. Richards and others of the same mission. The closeness in type of this "Cataract" dialect, spoken in the region of Mbanza Manteke and Lukungu, to the Bwende or Fiote dialect further upstream, has resulted in its abandonment in favour of the latter.

The dialect known as (ki)Kongo (Bwende or Fiote) is used principally by the American

[48] *The Book of a Thousand Tongues*, p. 318.
[49] See *Bantu: Mod. Gram., etc., Studies*, p. 12.
[50] Idem., p. 12.
[51] *Pilkington of Uganda*, by C. F. Harford-Battersby, pp. 266-270.
[52] The 17th Century Catechism of Cardoso.

Baptist Foreign Missionary Society and the Swedish Missionary Society. One of the Swedish Missionaries, Nils Westlind[53], originally on the staff of the Livingstone Inland Mission, which handed over their work in 1885, had already translated the *New Testament*; but the first book printed was *John's Gospel* which was privately published at Christinehamn in Sweden in 1885. The *New Testament* was printed in parts on the Mission Press at Mukimbungu, being completed in 1891. The *Old Testament* was translated by K. E. Laman[54] who revised Westlind's *New Testament*, and the complete Bible appeared in 1905. Of this a revised version, prepared by a committee representing three Societies, was published in 1933. The labours of Westlind and Laman in connexion with the (ki)Kongo Bible will ever be honoured.

The Baptist Missionary Society (British) started their work at San Salvador, the capital of the old Kongo Empire (now in Angola), in 1879, and four years later printed a few chapters of *Matthew's Gospel* on a small mission printing press. The dialect used was called (kishi)Kongo or "San Salvador", and the first complete book was *Mark*, translated by G. R. R. Cameron, and printed in 1888 in London. In the following year *Matthew*, translated by J. H. Weeks, author of *Congo Life and Folklore*, was printed in the field. "The name of W. Holman Bentley[55], one of the greatest linguists of the mission, appears first in connexion with Bible translation in 1890 when the version of *St Luke's Gospel*, which he prepared with the help of M. D. Nlemvo, was printed. Their version of *St John's Gospel* was published in the same year. It was reprinted in London in 1892. They proceeded with the *New Testament* which was issued in the following year."[56] The whole *Bible* was published by the Bible Translation Society in 1916, after being issued in parts as completed by the translators, H. R. Phillips, R. H. C. Grahame, T. Lewis, W. B. Frame, G. R. R. Cameron, Mrs Bentley, W. Wooding and M. N. Nekaka. A revised edition was published ten years later. Of this W. Y. Fullerton[57] wrote: "The day the first printed Bengali Bible was put into William Carey's hands was almost equalled in triumph when the first copy of the revised Kongo Bible—God's Book, as it is called—reached Congo. Clamorous crowds stretched out their hands for copies, and joy thrilled through all the churches. The final revision was made by a special committee in the Baptist Mission House in London with Thomas Lewis as Chairman, and as Secretary, Robert Glennie, who for so long was the B.M.S. Bible Translation and Literature Secretary."

To meet the requirements of the Portuguese Government of Angola, an edition of the *Psalter*, published in 1925, contained the Portuguese version (D'Almeida) on alternate pages. A similar diglot edition of the *New Testament* was published in 1935.

It is difficult to foresee whether a single Union Kongo version will be attempted. Workers in any one dialectal form are liable to consider their dialect superior. The following was recorded regarding the "San Salvador" dialect[58]: "It should be mentioned here that Mr Bentley and his colleagues ever felt grateful that they were led in the first instance to San Salvador, the Congo language as spoken in that old capital being far superior to dialects used elsewhere and being understood over a wider area". Superior in what way?

* * *

Nyasaland is an area where it was early recognized by the missionaries that a cooperative effort towards a union of dialects was the solution to an involved linguistic situation. The first book of Scripture was in the western dialect of NYANJA[59], *Mark's Gospel* translated by the Scottish pioneer missionary, Robert Laws. Regarding this, Laws, who often frankly confessed that he

[53]See *Bantu: Mod. Gram., etc., Studies*, p. 19.
[54]Idem., pp. 20-21.
[55]Idem, pp. 18-19.
[56]Kilgour, *The Bible Throughout the World*, p. 92.
[57]*Baptists and Bible Translation*, p. 6.
[58]J. B. Myers, *The Congo for Christ*, p. 66.
[59]See *Bantu: Mod. Gram., etc., Studies*, pp. 67-68.

was no linguist, said[60], "I do not call this a translation, but it may be the first rough outline, which disappearing, shall in better fitted hands be transformed to a living account of the life and work of our blessed Lord". He had worked, on and off, at *Mark's Gospel* for five years, before, after several revisions—for he was never satisfied with any piece of work unless it were as perfect as possible—he despatched it to Lovedale, 2,000 miles away south, in 1880, to be printed. The first edition of 1,000 copies, however, never reached its readers, for it was destroyed, on its journey up-river, in an attack made by Africans of the Chinjiri tribe upon a Portuguese station. Laws, however, continued with greater vigour his translation work, and six years later completed his version of the *New Testament*. In order to avoid any further risks he brought his manuscript to Edinburgh in thirteen little volumes, and it was published by the National Bible Society of Scotland in 1886. Translation in Old Testament books in this dialect was continued by C. Henry and A. C. Murray.

From the Mission planted at Blantyre in the Shiré Highlands to the south, D. C. Scott[61], who became the architect and builder of "the finest church in South Africa", began translation work in a southern dialect of Nyanja. He brought out *Matthew* and *Mark* in 1892, the *Gospels* in 1893 and certain *Epistles* in 1894.

Away to the east of the Lake and on the Island of Likoma the Universities' Mission was at work, and yet another version, in Eastern Nyanja, was undertaken here. Chauncy Maples[62] translated *Mark* in 1891, and Archdeacon Johnson the *Psalms* in 1893. The *New Testament* was completed in 1898 and the whole *Bible* in 1912. Archdeacon Johnson and Miss K. H. Nixon Smith[63] were responsible for this translation. This Eastern version is used almost entirely by this one mission.

In 1900 a joint Bible Translation Committee was formed to provide a version in a form of the language which could be used by all the missions working in the various Nyanja groups. The work was based on the western and southern forms, and was carried out principally by Dr W. H. Murray of the Dutch Reformed Church and Dr Alexander Hetherwick[64] of the Church of Scotland Mission. *Matthew* was published in 1901, the *New Testament* in 1906, the *Bible* in 1922. A revised version was printed in 1936. This translation has wide vogue in Nyasaland today, and the policy of unification followed by its translators is proving to be a very wise one.

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Unification for literary purposes is now going on in a number of areas; we have already noticed the steps being taken in the Coastal Swahili and Western (or Ngwana) Swahili areas, as well as those among the Nyanja. But there are others.

In the Lolo-Mongo-Nkundu[65] area of the Congo, translation was for some time carried out in the distinctive Mongo dialect, the earliest work being done by H. G. Haupt of the Congo Balolo Mission in 1893. Eventually the *New Testament*, translated by Mr and Mrs A. E. Ruskin, was printed in 1908. In Nkundu dialect *Psalms* translated by C. B. Banks appeared in 1893, *Luke* by Mrs F. T. McKittrick in 1895, and various other books of the New Testament were issued up to 1905. Later work was commenced on a UNION MONGO-NKUNDU version. A translation of *Matthew* was prepared by a committee representing the Congo Balolo Mission and the Disciples of Christ Congo Mission. In 1921 the *New Testament* in this Union version appeared, and in 1930 the complete *Bible*. To Mrs Ruskin belongs most of the credit of this achievement, though her labours were shared by her husband and the Revs. S. Gilchrist, H. F. Hensey and H. C. Hobgood.

[60] W. P. Livingstone, *Laws of Livingstonia*, pp. 142, 182, 220.
[61] See *Bantu: Mod. Gram., etc., Studies*, p. 68.
[62] Idem, pp. 71, 72.
[63] Who was also to a large degree responsible for the translation of the *Old Testament* into Yao.
[64] See *Bantu: Mod. Gram., etc., Studies*, pp. 68, 69, 71.
[65] Idem, pp. 25-27.

Mambwe and Lungu[66], spoken to the south-east of Lake Tanganyika, provided another sphere for unification. D. Picton Jones of the L.M.S., starting with *Mark's Gospel* in 1893, completed the *New Testament* in 1901. There was a certain dissatisfaction with this version and a committee of L.M.S. missionaries set to work on a new version and certain New Testament books were published in a revised form between 1909 and 1914. Later it was decided to widen the scope and a UNION MAMBWE-LUNGU version was commenced, the *Gospels* and *Acts* appearing in 1921. This was the work of W. G. Robertson, E. H. Clark, Dr Wareham, W. Draper and J. A. Ross. The *New Testament* was completed in 1922 and *Psalms* in 1924. This has proved a much more satisfying translation.

In the Gabun and Ogowe regions of French Equatorial Africa are two closely allied languages which have been used in translation work, Mpongwe[67] and Galwa. In the former the first publication was *Matthew* in 1850, translated by A. Bushnell. Other books followed until the *New Testament* was published in 1893; this was mainly Bushnell's work, but had been revised by A. C. Good of the Presbyterian Mission. Large parts of the Old Testament had also been translated by A. Bushnell and W. Walker. In Galwa a start had been made on the Old Testament; U. Teisserès of the Paris Mission had published the *Pentateuch* in 1903, the *Psalms* in 1906 and the *New Testament* in 1907. After this, however, Teisserès worked on a version that could be used by both Mpongwe and Galwa speakers, the *New Testament* appearing in UNION OMYENE in 1919 and the *Bible* in 1927.

In Southern Rhodesia[68] the position of Bible translation was even more confused. There were no less than four distinct *New Testaments* in four of the Shona dialects, Karanga, Zezuru, Manyika and Ndau, while the *Gospels* and *Acts* were in a fifth, Kalanga. The survey[69] taken in 1929 revealed the possibility of unification in the four main sections, Ndau, however, being rather in doubt. It was recognised at the time that it would not be possible to bring Kalanga into any scheme of unification. In Zezuru, the Wesleyan area, publication had begun as early as 1898 with John White's translation of *Mark*, the *New Testament* being completed by him in 1907 with African assistance. Some books of the Old Testament were also printed. In Manyika, where the Church of England worked, Bishop Etheridge's translation of *Mark* appeared in 1903., the whole *New Testament* being printed in 1908. This dialect had unwisely been labelled as "Swina" a derogatory term meaning "dirt". In Karanga, the area worked by the Dutch Reformed Church, *Mark* was published about 1900, the translation having been carried out by A. A. Louw, the pioneer of the Mission and J. P. Helm. The *New Testament* was completed in 1919, largely due to the labours of Mrs Louw, who also prepared large portions of the Old Testament. In Ndau, where the "American Board" worked, the *Gospels* were produced in 1910, and the *New Testament* in 1919, by a committee consisting of J. E. Hatch (of the South Africa General Mission), G. A. Wilder and C. C. Fuller (both of the A.B.C.F.M.). After the linguistic survey of 1929, A. A. Louw, Jr, who had been born in the country, and had spoken one of the dialects from infancy, and received a theological education in America, devoted his attention to a UNION SHONA translation, bearing in mind particularly the needs of the Karanga, Zezuru and Manyika areas. In 1938 the British and Foreign Bible Society published his tentative translation of *Judges, Ruth* and *John's Gospel*, to which was appended a glossary of dialectal synonyms. This was circulated widely for criticisms and suggestions from various areas. It paved the way for the "Union" *New Testament* of 1942, and Louw went on to complete the *Bible* which appeared in 1949. Meanwhile it was found impracticable to include Ndau in the

[66]Idem, p. 38.
[67]Idem, pp. 6, 7.
[68]Idem, pp. 97 et seq.
[69]Idem, p. 100.

unification, and in 1957, largely due to the labours of C. J. Dotson, now of the Southern Baptist Convention, the Ndau Bible was published.

Ngala[70] of the Congo river bend provides a picture of confusion as to dialectal forms and varieties of this widespread trade and mixed language. Translations have been made into what are called "Bangala Proper", "Lingala" and the "Uele dialect" of Ngala[71]. Then in 1934 a start was made at unification by the publication of *Mark* in UNION NGALA, the translation being carried out by H. Stam, A. B. Palmer and D. C. Davies. The whole *Bible* appeared in Ngala (Uele) in 1955.

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A field where research into the possibility of unification will probably be undertaken before long is that of the far-flung types of LUBA. Into three of these types, Luba-Lulua, Luba-Sanga, and Luba-Katanga the complete *Bible* has been translated; into a further one, Luba-Kaonde, the *New Testament*; while *Gospels* have appeared in Luba-Kalebwe and Luba-Songi.

The Luba-Sanga Bible of 1929 is the result of the pioneer work of the well-known "Garenganze" missionary, Dan Crawford, author of *Thinking Black*, whose *New Testament* was published by the National Bible Society of Scotland in 1904. This is registered as "Luban", a rather foolish anglicism formed from "Luba", which has been used by a number of writers dealing with this area.

The story of the Luba-Lulua Bible has been told by C. L. Crane in the *Bible Society Record*[72]. The work is a monument to the efforts of Dr W. M. Morrison[73], and it is interesting to see how he started. In 1911 he "began to gather together into one volume the many translations of the Bible text contained in the International Sunday-School Lessons that he had made in previous years, filling in the spaces with other portions of Scripture, some of them translated more or less literally, some of them paraphrased so as to give the sense, but not the exact words. With the assistance of a native helper who accompanied him on his furlough to America, this book was completed and turned over to the American Tract Society of New York for publication. When it appeared in 1912, it contained an almost complete outline of Old Testament history, the life of Christ, New Testament history in Acts and a paraphrase of the Epistles, together with portions of Revelation. It was not the Bible, but it bridged the gap, for the primitive native, between a very primary educational and religious development and that stage when further progress of such development could lend a deeper insight into the completed Bible. This book also set the rules and principles of translation for later translation and revision of the Bible—the first of which is always to preserve the sense and spirit of the Word rather than an unintelligible literalness. So it is that the unfamiliar animals receive native connotations: the *bear* becomes a *leopard*, and a *crocodile* does service for *dragon*." When Morrison returned from furlough in 1913 he commenced a literal translation of the *Gospels* and *Acts*, which were issued from the John Leighton Wilson Press at Luebo shortly before his death in 1918. "Dr T. C. Vinson, having become associated with Dr Morrison in the work of translation in 1916, and having begun on the translation of the Old Testament, carried this work on by himself, translating the entire Old Testament and completing the New Testament from Romans through Revelation. This, too, was the crowning work of a useful missionary career; for, because of health conditions in his family, Dr Vinson had to retire from the work of the Mission." This *Bible* was published in 1927. Crane goes on to refer to the expansion of missionary work to touch other dialects and the need "to have the Bible in one basic language that could soon

[70]Idem, pp. 27-29.
[71]Kilgour, *The Bible Throughout the World*, pp. 85-86.
[72]Monthly journal of the American Bible Society; see vol. 87, no. 3, March 1942, pp. 38-40, "A New Bible for the Heart of Africa".
[73]See *Bantu: Mod. Gram., etc., Studies*, p. 32.

be learned and understood by most of these people; that is, one Bible instead of several Bibles for Native races that are becoming more and more fused into one race as they are drawn together in mining camps, railway and other urban centres, and as intermarriage among them takes place. Answering the demand for a new edition of the Bible, the Mission appointed five missionaries to form a revision committee . . . That the work of revision took almost ten years for the New Testament alone, with the revision of the Old Testament still in the indefinite future, must be explained by the fact that revision work has had to be secondary to the ordinary missionary routine. . . . Very great care also went into the work of revising the New Testament: a careful attention to the Greek, a careful weighing of every native term or word in order to discover its true connotation . . . ."

J. A. Clarke of the Christian Missions to Many Lands was the main translator in Luba-Katanga (*New Testament*, 1923, and *Bible* in 1951), and C. S. Foster of the South Africa General Mission was principally responsible for the 1938 *New Testament* in Luba-Kaonde.

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'VENDA is a Bantu language in which Scripture translation in very recent days has been due entirely to the devoted talents of one man. P. E. Schwellnus of the Berlin Mission first translated the *Gospels* and *Acts* which were published in 1920. The *New Testament* and *Psalms* followed in 1923, and the *Bible* in 1936. This was a great achievement, and it is recognized that this translation is a scholarly piece of work. In recognition of his great services in translation and other language work the University of South Africa conferred a doctorate on Schwellnus. His talents did not lie only in the field of Venda, and he turned to a revision of the Northern Sotho (or Pedi) Bible, which had resulted from the labours of his colleagues, C. Knothe, G. Trümpelmann and H. Kuschke, and which had been published in 1904. This revised *Bible* was published in 1952 after the death of the reviser.

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Space does not permit of a survey of all the Bantu Bibles, much less of the Testaments. Around many a one romance and sacrifice are woven. Much has been achieved: much still remains to be done. Today what is urgently needed is real knowledge of the inter-relationship of all the Bantu languages, so that it may be known with certainty where a distinct translation is required, where existing translations can be used, and where unification and standardization should be undertaken. Unnecessary duplication of this onerous work should be avoided wherever possible.

Little has been said about the merits or demerits of the translations. Some we know have proved to be masterpieces of translation. Some, doubtless, are poor in idiom—the work of men not specially qualified for it, but forced by circumstances to do what they could: these have in many cases served a useful purpose until such time as revision committees composed of linguistic, and Biblical scholars have been able to produce a better version. A hopeful sign today is that in some cases the highly educated sons of missionaries, men born in the mission field and having a thorough knowledge of the languages, as well as African Christians themselves, are taking their part in this revision work.

As was the case with the English Bible, so in Bantu lands, these various translations are tending to set the standard for the literary forms of the languages, and this explains to a large extent the conservative attitude of many African Christians who do not take easily to revised versions.

THREE BUSHMAN LANGUAGES
PART II: THE THIRD BUSHMAN LANGUAGE[1]

L. F. MAINGARD

The Magon, we had been told, live beyond the Okwa River, 50 miles or more south of Ghanzi. If we wanted "wild" Bushmen these would be the ones we were looking for. Magon is not a true Bushman appellation. It is a corrupted Tswana word, just like Makoko, which we have already met, Masarwa, Manaro, Magikwe, etc. It contains the usual tribal prefix **ma-** followed by the Tswana adaptation of the Bushman group name, e.g. **ma+!kõ:**>Magon. So we shall speak now of **!kõ:**, the people and their language.

Distribution of the !kõ: Language

!kõ: is the most northerly of the Southern Group of the Bushman languages. It is spread roughly in the form of an angle from north to south and from west to east. (See the map in the first part of this study).

1. Extent from north to south: From the Okwa River, which forms its northern boundary, to Lehututu, a distance of approximately 140 miles, and probably further south.

2. Extent from west to east: From slightly west of the Bechuanaland Protectorate and South-West Africa border to Lehututu; From Lehututu along a line running east to Kang and Duthlwe, covering a distance of some 200 miles. It extends further south to Khakea and Kgokong.

The Peabody Museum Harvard Smithsonian Institution Kalahari Expedition travelled from the Okwa River, through the heart of the **!kõ:** country, to Lehututu in the south; from thence east to Kang and Duthlwe.

The existence of the **!kõ:** linguistic group west of Lehututu was confirmed by further investigations among some 90 Bushmen employed at the Hartebeesfontein Gold Mine, near Klerksdorp, Transvaal (October 1956). These had been imported from Lehututu, Kang and Tsetseng, through the Native Recruiting Corporation of the Chamber of Mines. Valuable recordings and other linguistic data were obtained from them.

The first contacts with the **!kõ:** were established at the camp on the Okwa River. About a mile north of the camp there was a cattle-post in the charge of a Bantu and in his employ were one or two **!kõ:**, who had strayed from their home further south. Among these I chose my first informants. I wished, however, for some more and "wilder" Bushmen, who eventually turned up from a group living some 25 miles south-west of the camp, and from them we had the language uninfluenced by external intrusions. Beyond Okwa, our next place of operations was Baruchwe, also right in the heart of the **!kõ:** country.

Uniformity of the !kõ: Language within the Area described

Differences between the **!kõ:** spoken in the north (Okwa and Baruchwe) and in the south (along the line Lehututu-Duthlwe) are very slight. They are largely lexical and phonetical. Below is a list of these differences which it has been possible to record.

English	Northern !kõ:	Southern !kõ:
sky	**/ku/ke**	**/ɳali,!ɳaJi**
skin	**təm**	**təm, /goe**
man	**ta:ʔa**	**la:ʔa**
woman	**takae**	**lakae**
to eat	**ʔẽ, ʔã**	**ʔã**
tsama melon ..	**tam**	**dã-ha**
good	**!gãĩ**	**kãĩ**
springbok ..	**!goa**	**/goa, !goa, //goa**

[1]This second part of the study has received the financial assistance of the National Council for Social Research and the University of the Witwatersrand, Johannesburg, to both of which I tender my thanks. The first part appeared in *African Studies*, 16, 1, 1957.

ʔẽ (to eat) may be an individual variant. In the case of the last two words, it is difficult to say whether they are individual or dialectal variants.

Add to these, the use of the glottal stop seems to be more common in the southern dialect (See examples under glottal stop).

In the matter of loan words, the northern dialect, being more isolated, is largely free from these borrowings. The following have been noted: from Kgalagadi: **kxoʃi** (chief), found only in the speech of the few **!kõ:** living north of the Okwa; **tsipi** (iron), an imported substance; and from Afrikaans, **pi:pi**<*pyp*.

In the southern dialect, loan-words are more numerous:

(*a*) from Kgalagadi: **tobolo** (gun, also a quiver); **tseke** (yellow); **tsipi** (iron); **makhote** (tribal name applied to them by the Kgalagadi).

(*b*) from Afrikaans: **ba:ki** (coat)<*baadjie;* **be:reka** (to work)<*werk;* **tabak** (tobacco), instead of the genuine **!kõ: /kau//ŋa.**

(*c*) from English: **na:si,** their adaptation for *N.R.C.*, the initials of the Native Recruiting Corporation.

Another feature of southern **!kõ:**, as against the northern dialect, is the large number of non-Bushman proper names: Matlaope, Moetlo, Samothwe, Dinawane, Picanin, etc. My informants from the north had Bushman names, e.g. **dʒuǂkao, ǥaoǂkao, /khari,** etc.

Three words, which are also borrowings, are common to both north and south and indeed are to be found in almost all the Bushman languages. They are **ǥumi** (cow), and **ǥu:** (sheep) from Hottentot, and **piɭi** (goat) from Bantu.

PHONOLOGY

The phonology of **!kõ:** has many features in common with the other Bushman dialects. It is characterized by

(i) the fluctuations of vowels within certain sound areas;

(ii) the fluctuations of certain consonants, more especially between voiced and voiceless;

(iii) click consonants with their releases, which latter are subject to similar fluctuations;

(iv) the extensive use of glottal stops before vowels;

(v) the existence of vowels with a laryngal colouring;

(vi) its tonal system, which applies to the word as well as to the sentence.

It should be noted that the vowel and consonant fluctuations occur in the speech of an individual speaker as against another speaker and also in the speech of the same individual speaker using the phoneme at different times.

Vowels

1. Fluctuations among vowels within the same sound areas:

i—e	**ti—te** (with)
	/ŋi—/ŋe (to see)
	ki—ke (an enclitic)
	⊙ʔi—⊙ʔe (duiker)
	//ʔe—//ʔi (to shoot)
e—ɛ	**//kwe—//kwɛ** (cold)
	/kwe—kwɛ (eye)
o—ə	**!ko—!kə** (knife)
	!ŋo—!ŋə (foot)
	tsʔo—tʃə (to sit)
	soʔ—səʔo (beak)
	!xo—!xə (needle)
o—u	**dʒo—dʒu** (hole)
	/ŋo—/ŋu (to run)
	!kõ—!kũ (eland)

2. Fluctuations among vowels which are not members of the same phoneme also occur:

ʔã—ʔẽ (to eat)
/ŋa—/ŋe (head)

Note also the following variants:

/ŋe—/ŋei—/ŋi (to see)
/ʔei—//ʔe—//ʔi (to shoot)
⊙ʔẽĩ—⊙ʔe—⊙hã—⊙ŋ (duiker)

3. Nasalization is a feature of Bushman languages. It seems, however, that it occurs

arbitrarily, e.g. **/hoa** and **/kõã** (hair), where the same word can be nasalized or not. Further examples of nasalization: **/kãũ** (name); **/kõã** (hair); **tã:ʔa** (to hear); **ta:kãĩ** (to understand)

4. Pharyngal colouring of vowels (symbol* after the vowel): A number of cases have been noted where the vowel has a pharyngal colouring, e.g. **/ka*ŋa** (red); **ǂga*i** (green); **!ka*Ji** (white). In the following sentences taken from the texts, the context clearly indicates that the use of the colouring is due to the emphasis placed on the particular word which it is intended to throw into relief.

(*a*) **i kwa //ʔei ia !ŋwa, /kõ:*, /kõ:*** (I follow the spoor, it is dead, it is dead).

(*b*) **/ŋ tʃʔi /ki, /ʔumte //ka:*, /ʔumte ka:*** (There is nothing of the kind here, I do not know it, I do not know it).

5. Diphthongs and triphthongs. Falling diphthongs.

ei **//ʔei** (I shoot); **/gei** (steenbok); **//kei-ke** (together); ⊙**ʔei** (duiker).

ai **ǂgai** (green); **//kxʔai** (to scrape); **!ŋai** (hartebeest); **ǂkai** (to have).

au **/kãũ** (name); **/kau** (to leave); **dau** (path); **!ŋau** (young man).

ou **/khou** (to sew); **tʃʔou** (to sit).

Rising diphthongs.

ui **/kui, /kwi** (small); **!ŋui** (white); **//kui, //kwi** (to go on).

oa **/koa, /kwa** (to sew); **/hõã, /hwã** (hair); **!goa, !gwa** (springbok); **ǂʔoa** (one).

In these examples, the second word of a pair shows the passage of **ui** > **wi** and **oa** > **wa** in rapid speech.

The addition of a supporting enclitic to a monosyllabic word sometimes results in a diphthong, e.g. **di**+**a** > **dia** (to do); **si**+**a** > **sia** (this); **si**+**i** > **sii** (this); **!ŋo**+**a** > **!ŋoa** (foot).

Similarly the addition of a supporting enclitic to a dissyllabic word sometimes results in a triphthong, e.g. **!ŋui**+**a** > **!ŋuia** (white).

CONSONANTS

Chart of the emitted consonants in **!kõ:**

	Bilabial	Dental	Prepalatal	Velar	Glottal
Plosive ..	**p b**	**t d**		**k g**	**ʔ**
Nasal ..	**m**	**n**	**ɲ**	**ŋ**	
Lateral ..		**l ɭ**			
Fricative ..	**v**	**s**	**ʃ**	**x**	**h**
Affricate ..		**tsʔ**	**tʃʔ dʒ**	**kxʔ**	
Semi-vowel	**w**		**j**		

1. **p** is not a genuine **!kõ:** phoneme. As far as my observations go, it has been found only in three loan words, e.g. **pi:pi** (pipe); **tsipi** (iron) and **piJi** (goat). **b.** Instead of **b** a labial fricative **v** is heard in the verb formative **ba,** as **va**. This is often replaced in rapid speech, in combination with some other word, by **ua** or **wa**, e.g. **iua** and **iwa** as triphthongs.

2. The dental **d** is sometimes devoiced and becomes indistinguishable from its voiceless counterpart **t,** e.g. **di** and **ti** (to do); **tam** and **dãŋ** (tsama melon).

3. The following consonantal fluctuations occur:

(i) The velars **k** and **g** interchange freely in the following pairs of words: **ka** and **ga** (it); **kwa** and **gwa** (it); **kam** and **gam** (yesterday). There is a devoicing of the **g** in **gu:** (sheep), which then becomes **ku:.** But this does not occur with **gumi** (cattle).

(ii) The voiceless prepalatal affricate **tʃʔ** interchanges with the voiced **dʒ,** e.g. **tʃʔua** — **dʒua** (to beat); **tʃʔu** — **dʒu** (hole); **tʃʔuma** — **dʒuma** (to smoke). But **tʃʔo** (to sit) and **tʃʔa** (to go) remain as they are.

(iii) The voiceless dental affricate **ts$^{?}$** has a tendency to change to the prepalatal affricate **tʃ$^{?}$**, e.g. **ts$^{?}$o** and **tʃ$^{?}$o** (to sit).

(iv) The dental fricative **s** interchanges with the prepalatal fricative **ʃ**, e.g. **si—ʃi** (we); **si—ʃi** (to come); **si—ʃi** (this); **sa—ʃa** (to go); **su—ʃu** (to sit), **su** being a variant of **tʃ$^{?}$o.**

4. The labial nasal **m** is homorganic to the labial click ⊙, e.g. **m⊙ka** (son); **m⊙xa** (child); **m⊙$^{?}$wala** **//kai** (daughter); **m⊙$^{?}$wai** (tree). Similarly the velar nasal **ŋ** is homorganic to any of the clicks, except the labial click, e.g. **ŋ!kai** (steenbok); **ŋ/kabe** (bow).

m and **ŋ** also have a syllabic value in the following: **m/ka** (my hand); **m//$^{?}$ei** (to stalk); **ŋkabe** (my mother); **ŋn$^{?}$a:$^{?}$a** (my father); **ŋ/ŋ** (wife); **⊙ŋ** (duiker).

5. The glottal stop is extensively used before vowels, e.g. **doŋ$^{?}$a** (kudu); **!ŋa$^{?}$i** (hartebeest); **/ka$^{?}$i** (lion); **!kha$^{?}$a** (chief); **!ko$^{?}$o** (pipe). These words occur also without the glottal stop.

6. Labialization of the velar plosives **k** and **ǵ** occurs, e.g. **ka—kwa** (it); **ǵa—ǵwa** (it); **kobe—kwabe** (morning). Labialization is especially frequent in the click releases, e.g. **//ka** and **//kwa** (not); **//ǵa** and **//ǵwa** (not), etc.

7. The palatal **c** is only met with in one word **ce,** a variant of **ke.** It has been omitted in the chart of consonants as being non-significant.

8. Besides **ɺ,** the flapped variety of the lateral, the unflapped variety **l** is also found, as an initial phoneme, in a few words, e.g. **la:$^{?}$a** (man); **lakae** (woman); **-la** (that, an enclitic pronoun).

Chart of the click consonants in **!kõ:**

1. The symbols used for the click releases in this chart are a sufficient indication of their phonetic values.

2. The labial click ⊙ is one of the most important features of the Southern Group of Bushman languages. It serves to distinguish them from the Northern Group, where it does not exist. It occurs only in a very limited number of words.

Labial	Dental	Ave-olar	Palato-Alveolar	Lateral
⊙k	/k	ǂk	!k	//k
⊙ǵ	/ǵ	ǂǵ	!ǵ	//ǵ
	/kh	ǂkh	!kh	//kh
⊙x	/x		!x	//x
⊙$^{?}$	/$^{?}$	ǂ$^{?}$	!$^{?}$	//$^{?}$
⊙ŋ	/ŋ	ǂŋ	!ŋ	//ŋ
⊙h	/h	ǂh	!h	//h
	/kx$^{?}$		!kx$^{?}$	//kx$^{?}$

3. There are fluctuations in the click releases, as is the case with other **!kõ:** phonemes. Examples:

/habe—/kabe (bow)
/koa—/$^{?}$oa (to sew)
/ŋum—/$^{?}$um (throat)
/hõã—/kõã (hair)
//kai—//ǵai (female)
//kai—//kx$^{?}$ai (to scrape)
⊙ka—⊙xa (son)
⊙ǵoke—⊙koke (firewood)
!ǵom—!kom (Bushman greeting)

TONE

!kõ:, like other Bushman languages, is characterized by its use of word-tone and sentence-tone.

The Word-tone

There are five tones in **!kõ:.** They are the high-level tone, the mid-level tone, the low-level tone, the rising tone and the falling tone.

(i) The high-level tone (symbol [¯] before the syllable), e.g. **¯$^{?}$an** (to make); **¯/ŋei** (to see); **¯/kõ** (to kill); **¯!xo** (needle).

(ii) The mid-level tone (not marked), e.g. **ʔã** (to eat); **kxʔa** (to drink); **/ʔa** (fire); ⊙**ʔweije** (meat)

(iii) The low-level tone (symbol [_] before the syllable), e.g. **_!ŋo** (foot); **_/ŋa** (head); **_⊙ʔwi** (small); **_!gum** (sinew).

(iv) The rising tone (symbol [/] before the syllable), e.g. **/ǀǀʔei** (to stalk); **/kwa** (to sew); **/ŋo** (to run); **/tʃho** (to sit).

(v) The falling tone (symbol [\] before the syllable), e.g. **\⊙ʔe** (duiker); **\gi** (steenbok); **\sa** (to go); **\ǀǀʔa:** (to lie down).

The word-tone may have a semantic significance, that is it may have the function of distinguishing between words phonetically alike, but with different meanings, e.g.

/ka (hand) and **¯/ka** (arrow)
¯!kha (chief) and **!kha** (water)
¯/ŋa (to see) and **/ŋa** (head)
¯/ʔa (to die) and **/ʔa** (fire)
¯‡ʔoa (wet) and **‡ʔoa** (one)
¯!ko (pipe) and **!ko** (knife)

The word-tone, however, does not always indicate a difference of meaning, e.g.

/ǀǀʔei (to shoot) and **/ǀǀʔei** (to stalk)
/ŋum (throat) and **/ŋum** (beard)
ǀǀka (not) and **ǀǀka** (bad)
ǀǀha: (bag) and **ǀǀha:** (man).

The sentence-tone

The sentence-tone in **!kõ:** is extremely flexible. Normally a high-pitched tone falls on the last syllable of the sentence or, if the last word is an enclitic or a pronoun, the high tone falls on the penultimate syllable, the tone thereafter gliding to a lower pitch on the enclitic or pronoun, which is generally lengthened. In the process, the original word-tone is obscured or altered. Examples of sentences showing different types of sentence-tone:

Sentence
1. **ma !kaote:** (I cut it)
Tone pattern
mid—high—gliding to very low; **-te** enclitic pronoun lengthened.

Sentence
2. **na: ʔa dʒu hãka:** (My father beats it)
Tone pattern
mid — mid — high — gliding to low, then still lower; enclitic pronoun **ka** lengthened.

Sentence
3. **kau si:** (come here)
Tone pattern
high—still higher. **si** verb, normally short, is lengthened.

Sentence
4. **ʔa: tana** (You say)
Tone pattern
high—mid—mid. **ʔa** personal pronoun, normally short, is lengthened.

Sentence
5. **a koli ba /ŋei:** (You see)
Tone pattern
mid—mid—low—low—high. **/ŋei** verb, with diphthong, normally short, is lengthened.

Sentence
6. ⊙**ʔe, ⊙ʔe_təm kəm na:** (Duiker, duiker skin is this)
Tone pattern
high—slightly higher—high—gliding to low very low; **-na** is lengthened.

Sentence
7. **kuba ʔa/kwa tuku:** (Do you sew them?)
Tone pattern
mid—mid—mid—slightly higher—very high—low; last syllable lengthened.

Sentence
8. **!kxʔam təm aJu sãũ:kwa** (Gemsbok skin he works it)
Tone pattern
high—slightly higher—mid—mid—very high (emphatic)—gliding to very low; **-kwa** enclitic pronoun lengthened.

Sentence
9. **ɪʊa: /ŋei:** ⊙**ʔweisi** (I see the game)
Tone pattern
ɪ (slurred) —very high—high—mid—low; **ʊa** verb formative, normally short, is lengthened.

Sentence
10. **ma:: !kõ::** (pause) (I am a **!kõ:**)
Tone pattern
mid—mid; both words very long.

Sentence

!kõ: ina:, !kõ:, !kõ: ina: (A **!kõ:** this, a **!kõ:**, a **!kõ:** this)

Tone pattern

high — mid — high; **-na** enclitic is lengthened; high, high—mid—high; **-na** enclitic lengthened.

Sentence

!kõ: na na: (A **!kõ:** this, this)

Tone pattern

high — mid — high; second **-na:** lengthened.

This continuous passage is quoted at length, as it is a good example of a series of sentences spoken under emotional stress. The speaker is insisting most strongly that he is a **!kõ:** and therefore knows what he is talking about. The tones coming into play here are accordingly modified. Compare also:

ma tana, ma !kõ: (I speak; I am **!kõ:** i.e. I speak **!kõ:**). mid—slightly higher mid, mid—high.

MORPHOLOGY

The morphology will be treated under the headings of the Noun and the Verb, the most convenient divisions, which corresponds to the realities of **!kõ:** grammar.

The Noun

1. *Gender*

Differences of sex are not normally expressed in Bushman. Exceptionally, when attention is called to sex, **ʔa:ʔa** (male) and **//kai** (female) may be used.

1. (i) **ʔa:ʔa**, as an independent word, can be explained as follows: **ʔa:ʔa** is the male of the family, the father; **nʔa:ʔa** (my father), **eʔa:ʔa** (his father), where **n** and **e** are possessive pronouns.

(ii) **ta** (person); **ta:ʔa** (man)<**ta**+**ʔa:ʔa** (lit.: person male) ⊙**ʔa ta:ʔa** (boy lit: small male); **m** ⊙**ka iba ta:ʔa ce** (son, lit.: child male). ⊙**ʔwaije ʔa:ʔa** (lit.: wood male, the stick held vertically in fire-making, fitting into the hole in the stick lying horizontally on the ground). **!ko** (knife), **!ko ʔa:ʔa** (knife male, i.e. assegai).

(iii) Hence, to indicate the masculine, the use of **ʔa:ʔa** as follows:

ǂgumi (ox, cattle in general); **ǂgumi ʔa:ʔa** (bull).

When the word for bull is asked, the answer is often **e te ʔa:ʔa** (It is a male.)

Compare also **!kxʔam ʔa:ʔa** (male gemsbok); ⊙**ʔe ʔa:ʔa** (male duiker).

2. Similarly with **//kai,**

(i) **ta** (person); **ta kae** (woman)<**ta**+**//kai,** the click being omitted in **kae. ŋkae** (my mother); ⊙**ʔwala //kaiŋce** (daughter).

(ii) ⊙**ʔwaije //kai** (the bottom stick in fire-making); **ǂgobe //kai** (lit.: hole female, i.e. the hole in the bottom stick).

(iii) Hence, to indicate the feminine, the use of **//kai** as follows:

ǂgumi //kai (a cow); as a variant **ǂgumi ŋ/ŋ** was heard, **ŋ/ŋ** (wife) replacing **//kai.** Compare **!kxʔam //kai** (female gemsbok); ⊙**ʔe //kai** (female duiker).

It is plain from these examples that **ʔa:ʔa** and **//kai** are independent words. They are not in the nature of inflexions.

2. *Number*

-te and **-ke** are occasionally found added to nouns to translate the idea of plurality. They are used in a very limited way; it seems that they apply only to certain classes of nouns. They are variants of **ta** and **ka,** which are demonstrative and personal pronouns respectively. Examples:

//kanate (stars); **//hamate** (claws); ⊙**ǂgoke** (bundle of fire sticks); **/hõãte** (hair of the head); **/kate** (fingers, but **/ka**, hand).

This use of **-te** and **-ke** is confined to nouns denoting objects viewed as a group.

//ke:te or **//ke:ke** (breasts); **//kxʔaite** (buttocks); **/kwate** (eyes).

Here the objects are viewed in pairs.

Otherwise **-te** and **-ke** are seldom met with as signs of the plural, e.g. **ta:ʔa ba ʔan sebi, takae //kwa ba ʔan sebi** (Men make karosses, women do not make karosses). Compare again **ta:ʔa ǂŋum** (two men); **gãĩ. ta ta //kaǰi** (the buck are many); ⊙**ʔwai .kai ǂgai** (The trees are green). In these last

two sentences, **ta** and **ka** are not to be taken as signs of the plural. The pronunciation of the informants, making it two distinct and separate sound groups indicated by a dot after the noun, made it quite clear that they are pronouns (they), introducing **//kaJi** and **ǂǧai.**

3. *Numerals*

Bushman has no single words for numerals beyond two. Thus **ta:ʔa ǂʔoa** (one man); **ta:ʔa ǂŋum** (two men); **ǧãi //kaJi** (many buck). Evidently, the Bushman is not interested in their numbers; if asked about them, he will answer **ta //kaJi** (they are many).

A more detailed way of counting, when occasion arises, is by using the fingers. He starts with the little finger of the left hand and going on to the thumb, each time touching the relevant finger of the left hand with the index finger of the right hand. After reaching the thumb, he proceeds in the same way, but starting with the thumb of the right hand down to the little finger. Thus having counted ten, he next goes on to his toes, first, of the left foot and then of the right foot. This is the limit of his arithmetical capabilities.

Here is a list of the words used, when counting with the fingers of the left hand:

1. **ta ti a ǂʔoa** (This is one)
2. **ta ti a ǂŋum** (This is two)
3. **ʔĩsa ka la** (back, i.e. of the hand, is that)
4. **sa ka la** (It is that)
5. **si /kwi /ka na** (This is small hand this)

It is to be noted that the only genuine names of numerals are **ǂʔoa**, variant **!ʔoa** (one) and **ǂŋum** ,variant **!ŋum** (two).

4. *Pronouns*

(*a*) *Personal Pronouns*

Singular	Plural
1. **na, ŋ, ma, m**	**si** (exclusive), **i//kai, i** (inclusive)
2. **a, aʔa**	**u//kai, u**
3. **nte, e te ila**	**on tu ku, on tu u**

ta and **ka** (variants **te** and **ke**) are applied to inanimate objects. Examples:

Singular	Plural
1. **ma ʔã** (I eat)	**i//kei ba ʔã** (We eat), **ila ba ʔã.**
2. **a, aʔa ʔã** (You eat)	**u//kei ba ʔa** (You eat), **ulu ʔã.**
3. **nte ʔa, e te ila ʔã, e te ʔã.**	**o tuku a ʔã.**

Further examples of singular forms:

1. **ma tana** (I speak); **ma tam** (I go home); **na u /khao** (I sew it).
2. **a tana ka** (You say it); **a hoba ʔan** (What do you do?)
3. **si e te ⊙ʔwãĩŋ** (He sleeps).

Examples of **ta** and **ka:**

tana ka (Say it); **nʔa:ʔa dʒu hã ka** (My father beats it); **!kao te** (Cut it); **/ʔomte** (Soften it); **ma//ei te !ǧoa** (I shoot it, gemsbok).

Further examples of plural forms:

1. **si ba /ʔomte** (We, I and they, soften it); **i//kai ba kuma //ʔei** (We, I and you, shoot early).
2. **u ka ba hei tẽ** (You ask him); **u ka be ʔã ⊙ʔweisi** (You eat the meat).
3. **u ku //kai** (They hunt); **u ku ⊙ʔwãĩŋ /ŋoe ka kaʔa** (They sleep the whole night).

(*b*) *Demonstrative pronouns*

1. **si, ta, te, na, e te ina** (this, those), e.g. **//kwa ʔã ⊙ʔwaije e te ina** (Do not eat this meat); **tana ka si ta ǂʔoa** (Say it, this one, i.e. Say it once);
si ka //kanate (These are stars);
/ka si (this arrow or these arrows).
2. **ila, ete ila** (that or those), e.g. **⊙ʔwaije e te ila** (that meat), **təmla** (that skin or those skins).

la is also combined with pronouns to denote a distant person or object, e.g.
e te ila ʔã (He over there eats).

(*c*) *Interrogative pronouns*

kwe is widely used to introduce a question.
kwe dʒi ǧa thã (Who is that?)
kwe hoba ʔan (What does he do?)
kwe sa u ha tana (What do they say?)

kwe ǥãĩ ho te ba tã (What sort of buck is that?)
kwe takae ko hã /kwi (Where is the woman?)
kwe hã u ta be si (When will they come?)
tʃʔa ka ho a u si (Where does he come from?)

THE VERB

!kõ: knows no distinction of tense, mood or voice. The **!kõ:** speaker, in the absence of these distinctions and the resultant lack of precision, has to rely a good deal on the context to make himself understood or to understand others. The constant repetition of his sentences may be a consequence of this vagueness, as is well illustrated in the texts published further on.

1. The verb is often, though not by any means always introduced by the formative **ba** (variants **be, bi, ʋa, wa**). The verb thus introduced may have a reference to an action that is still going on, or to an action still to come or which is already completed. In most cases the listener is left to find his way about as best he can.

(i) Examples of verbs without the **ba** formative:

ma tana (I speak or I shall speak);
ma /xa (I dance or I shall dance);
ma tʃʔou (I sit);
ma //kwa /ʔumte (I do not understand it).

(ii) Verbs with the **ba** formative:

(*a*) **si ba /ŋei** (We see)
u ka ba ʔã ⊙waije (You eat the meat)
/koǂa ba a u ǥa ta ǂkai (A quiver, you have it).

(*b*) **i //kei ba kam //ʔei** (We hunt early tomorrow)
ma ba ⊙ʔwẽĩnte kxʔa (I shall drink tomorrow);
si ba ⊙ʔwãĩŋ /ŋoe ka kaʔa (We shall sleep the whole night).

(*c*) **iʋa /ŋei ⊙ʔweisi, si //ʔa:** (When I have seen the game, I lie down)
iʋa //ʔei, sita //kum, sita /kõ:, kwa sa na //ʔum (If I have hunted, hit the game and killed it, I go and pick up my quiver).

The first group of sentences above refers to an action still going on, the second group (*b*) refers to an action to come, and the last group (*c*) to an action which is completed; all are introduced by **ba** indiscriminately, without any indication of tense. **ba** must then be considered as a mere verb formative and not as a tense formative.

2. **ka,** a 3rd person personal pronoun, referring to inanimate objects (it, them) and **ta,** a demonstrative pronoun, used as an equivalent of **ka,** are often placed before or after the verb, in combination with **ba** or without it. The presence or absence of **ba** is of no significance.

ka, variants **ǥa, kwa, ǥwa, ke, ki,** and **ta,** variants **te** and **ti,** are not verb formatives, nor are they tense formatives, which last are foreign to **!kõ:**. Examples:

u ka ǂkaice /koǂa (They it have a quiver)
ta ǥa //ʔei ka ⊙ʔweisi (lit.: This it hunt it game, i.e. We hunt the game)
m /ka ka ǂŋõ: sipi (My hand it holds the iron)
si ta //kum, si ta /kõ: (This it hit, this it kill, i.e. This has hit and killed)
i ba kwa //ʔei ⊙ʔweisi (We it hunt game)
i ba !ŋai ka ba di (We hartebeest it make, i.e. We make karosses of hartebeest skins)
si ka be !ǥum /kwai di si (We it sinews sew, i.e. We sew it with sinews)

The repetition of one or more pronouns is a feature of Bushman.

3. Words denoting qualities are treated as verbs in **!kõ:**, and are similarly found with or without **ba** and with **ta** or **ka.**

(i) with **ba:**
ta ba !ŋuia (It is white)
ta u ba ǂǥai (It is green)
ta ta ba ⊙ʔwaice (It is small)
⊙ʔwa ka ba ta: ʔa (The child male)
ta ta ba ǂkai (It is big)

(ii) without **ba:**
e te ʔa:ʔa (It is a male)
sita !kaǂi (It is white)
ka u /ka*ŋa (It is red)

ka ǂgai (It is green)
/ŋoe ka kaʔa (the whole night)
sita ǂʔanika (It is black)

In all the above examples the words denoting qualities follow the same pattern of construction as the other verbs. The use of **ba** in the present instance as well as that of the pronouns **ka** and **ta** show that, in the mind of the speaker, they are looked upon as verbs.

4. There is no copula in **!kõ:**, as the following examples show:

ma !kõ: (lit.: I **!kõ:**, i.e. I am a **!kõ:**)
daʊe !konda ka (Dabe is an old fool)
⊙**ʔwai ka ǂgai** (The trees are green)
⊙**ʔe, təm, kəm na** (Duiker skin it this, i.e. This is a duiker skin).

In other words, the subject and predicate are simply juxtaposed or follow the same pattern as explained above.

5. Double verbs or verbs in a series. The same extensive use of the double verbs or verbs in a series is made in **!kõ:** as in other Bushman languages. Its function is to indicate a modification of the action or state expressed by the principal verb. This function of the double verb corresponds to that of participles, adverbs, etc., in European languages. Examples:

ʃu ʃa //kxʔai, ʃu ʃa //kxʔai (lit.: Sit come scrape, i.e. I shall sit down to scrape the skin).
si kabe !gum /kwai di si (We it sinews sew do this, i.e. We sew it with sinews)
u ǂkaba ʔan /kwa //keike (You have work sew be together, i.e. You sew together skins you have got)
u /kwa ǂkabe di !xo (lit.: You sew possess do needle, i.e. You make and sew with the needles you have)

Once again by simple juxtaposition, Bushman accomplishes what other languages do with more complicated means. In this connexion special mention must be made of two verbs, **//ka** and **sa, si.**

(*a*) **//ka,** variants **//ga, //kwa, //gwa, //kaʔa, //gaʔa,** properly means "there is not, does not exist". Thus:

!kha //kaʔa (lit.: Chief there is not, i.e. There is no chief)
ma //ka !ko (lit.: I, there is not, knife, i.e. I have no knife)

When one of my informants, who had a crippled hand, was asked what he could do in the veld, his answer was an emphatic, high-toned **//ka:** (There is nothing, i.e. Nothing).

The verb **//ka** is regularly used to negative other verbs, e.g.

taʔa:ʔa //kwa hã si (lit.: The man there, there is not, stand come, i.e. The man has not come)
ma //kwa ʔan sebi (I do not make karosses)
ma //ga/ʔumte (I do not know)
ma //kwa isa //ʔei (I shall not shoot)
//kobe ka tẽĩ (Do not hear)

(*b*) The verbs **sa** (to go) and **si** (to come) can be taken together here, as they serve very much the same purpose. Their variants are **ʃa** and **ʃi.**

Used as an element in the double verb construction, they refer to an action still to be accomplished, e.g. in the sentence already quoted **ʃu ʃa //kxʔai** (I sit, go scrape, i.e. I shall sit down to scrape the skin).

Further examples:

(i) used as independent verb:
!kwe si (The rain comes)
si ko (Come here)

(ii) with reference to an action still to come, in a double verb construction:
ma//kwa ĩ sa ka ʔã (lit.: I not go eat, i.e. I shall not eat)

It is to be noted that **si** and **sa** are not essential to the expression of futurity. There are other means of doing so (See under verb formative).

6. Repetition as a verbal function. As a simple device for expressing repeated action, verbal repetition is frequently resorted to. Describing the different stages in the making of karosses, the informant, omitting the pronoun subject, says:

/ʔomte, /ʔomte, /ʔomte, /ʔomte, /ʔomte, /ʔomte (I soften it) six times.

A second example, which here seems to describe habitual action, is

m/ka ǂŋõ: sipi, m/ka ǂŋõ: sipi, m/ka kwa ǂŋõ: sipi (My hand holds the iron).

THE SENTENCE

1. *Order of words in the sentence*

!kõ:, being a non-flectional language, has to keep a strict order of words, which is subject+verb+object. Examples:

nau //kãŋa /ka (I poison arrows)
ta:ʔa ba ʔan sebi (Men make karosses)

Exceptionally emphasis may require alteration of the order. But the context will leave the meaning in no doubt, e.g.

!kxʔam ka təm, m //ka sãũsi (Gemsbok skins, I do not work).

In one regular phrase, **/ʔa ʔan** (lit.: Fire make, i.e. Make a fire), the order is altered without the reason being clear.

One other important feature of the Bushman style also calls for attention. It is the constant omission of the subject pronoun, as in the following sentences:

kwa /ŋei ⊙ʔweisi, si //a:, si sã /ka, si sa //ʔei, /kõ: //ʔei, si kuma //ʔei (See the game, lie down, put my arrows down, stalk, stalk quite near, shoot quickly)

Here the subject omitted is "I". In the context of the text printed further on, this is evident, but, taken out of its context, as it is above, the subject could be equally well "you, we, they"

2. *The sentence in connected speech*

The elaborate system of principal and subordinate clauses, with their connecting link words, common to European grammars, is quite unknown to **!kõ:**. The **!kõ:** speaker's system is one of juxtaposition and not subordination. The sentences are pieced together without any connecting words and the sense is gathered from the context. Examples of sentences in connected speech:

(i) with reference to time.
ta u ka //ʔei, ko sisa //kum, sisa /kõ, si sa kwe di (When you hunt and when you have hit it and killed it, what do you do?, lit.: You, hunt, you hit, you kill)
a ʋa //ʔei, si ta /kum, sita /kõ:, kwe sa naʔa //ʔum (When I hunt, and when it is hit and killed, I go to pick up my quiver, lit.: I hunt, I hit and I kill)

(ii) with reference to cause:
ma //ki sabi, mie ho //kau (I take my kaross, it is cold, i.e. because it is cold)
na:ʔa tʃʔou ! ŋau ka, !ŋau ka //ka (My father beats the boy, he is bad, i.e. because he is bad)

(iii) with reference to a condition:
u ku //kãŋa ka //kwasi, u/ʔa (You breathe poison, you die, i.e. if you breathe)

(iv) with reference to purpose:
ma //aga !ko, ko ma be tʃʔuma (I have a pipe, I smoke, i.e. that I may smoke)
!ke ⊙ʔwaisi ⊙wa, ma di ʔã (Give me a little meat, I eat, i.e. that I may eat)

3. *Interjections*

Under this heading, commands, requests, approval, denial and other forms of emotional language can be included.

Approval: **e:**; **eʔe:** (yes); **e‾he:** (emphatic) (oh, yes, certainly)

Denial: **hẽ:ẽ** (no);
_ŋ‾ŋ (no), **ŋ/ŋ** (not by any means);
/ŋ (certainly not);
//ka: (nothing!)

Commands and requests:

ka u si (Come here)	**/ŋo** (run)
si kau (Come here)	**tʃʔa** (Go away)
tʃho (Sit down)	**ʔã ⊙ʔwaije** (Eat the meat)

//kobe ka tẽĩ (Do not listen)
//kobe kxʔã (Do not drink)

Closely related is the use of **-be** and **-la,** as forms of address. Examples:

ŋkae (my mother) and **ŋkabe** (O! my mother)
na:ʔa (my father) and **na:ʔabe** (O! my father)

na:ʔa be, si kau (My father, come here)
m⊙kabe, si kau (My son, come here)
ŋkeila (my mother there)
ŋ//hamla (O! my grandmother)

In all these examples, this form of address is restricted to family relationships.

4. *Miscellaneous*

The enclitics **-a** and **-i.**

The use of enclitics to give substance to a preceding monosyllabic word is not so common as in some other Bushman languages. In **!kõ:**, the pronouns **te** and **ka** seem, besides other functions, to have that effect.

(i) the enclitic **-a**: in the following pairs:
di—dia (to do); **si—sia** (this)
ʔan — ʔanna (to make); **//ʔum — //ʔumma** (to fetch)
In the last two, there is a redoubling of the final consonant.
!ŋo—! ŋoa—!ŋwa (foot)
//kãŋ—//kãŋa (poison)
!ŋui—!ŋuia (white)
dʒu—dʒua (hole)

(ii) the enclitic **-i, -je,** in the following pairs:
//ka—//kai (not)
/kwa—/kwai (to sew)
si—siʔi (to come)
/ʔe—/ʔei (to stalk)
/ʔom—/ʔomje (to soften)
⊙ʔwai—⊙ʔwaije (meat)

THE TEXTS

The recordings of the **!kõ:** language comprise, besides lists of words, a large number of isolated sentences and some continuous passages.

1. The isolated sentences, illustrating the phonetical and morphological features of the language, have been incorporated in the relevant sections of this study.

2. The continuous passages or texts are much less of a success, especially those obtained from the first Okwa informant (O1). He was nervous, easily got tired and his voice was not clear, due probably to an unhealthy condition of the throat. He finally got entangled with Naron, the language which served as a medium of interpretation and which he mixed freely with his native **!kõ:** or used entirely in his answers. They can hardly be called examples of continuous speech, as they are merely short sentences. Only a small amount of these texts recorded from him was found usable. One of them is printed further on.

3. The second Okwa informant (O2) had a crippled hand, the result of a camp fire, when he was a young boy. When questioned about hunting and kaross-making, he insisted on referring constantly to his handicap and got entangled in describing what he could do in the veld and what the normal man did. The portions of texts printed here form continuous stories and are fairly intelligible, after the inconsistencies and irrelevancies have been eliminated.

4. The results obtained from the Baruchwe informants were on the whole more satisfactory.

5. In many instances the recordings suffered from inadequate interpretation. At least two interpreters had to be used, a **!kõ:** and a Tswana speaker. The **!kõ:** speaker's Afrikaans, used in the first instance as an experiment, was very indifferent and he mixed it with his own language when he could not find the Afrikaans equivalent. This happened during the recordings of the second informant (O2).

6. With the Baruchwe people another experiment was tried. The question was put in Tswana, then translated into **!kõ:** for the informant and the informant's **!kõ:** was translated back into Tswana and finally into English, a very complicated but unavoidable procedure. As it happened, the **!kõ:** interpreter used Kgalagadi (a language related to Tswana) and did not always understand the other interpreter's Tswana, and possibly the reverse is also true.

In the longer texts, it seems that the **!kõ:** interpreter's memory was at fault and he introduced matter of his own invention, which was quite extraneous to the story told by the informant. In other instances, the

interpretation consisted of such short sentences as to be almost useless.

Constant repetitions, a feature of the true Bushman style, will be noticed throughout, more especially the almost verbatim repetition of sentences of the question by the informant.

A literal English translation is given, intended to preserve as far as possible the Bushman way of speaking. The words in brackets will, it is hoped, help to render the meaning fairly intelligible.

In the texts, Q. stands for question and A. stands for answer.

TEXT 1 (O1): THE BUSHMAN CHIEF

1. **kwe /kãũ !kaˀa.**
   (The) name (is) **!kaˀa.**
2. **e //ka:i !kaˀa.**
   He (is) not chief.
3. **e te !kaˀa, e si te ila.**
   It (is) the chief, that one.
4. **ma //ɠaˀa /ˀumte kwa.**
   I (do) not know it (his personal name).
5. **ele dʒe, kxoʃi, dʒe, e ta u /ka:.**
   That one, the chief, is there (in the kraal).
6. **eˀe, se kam / ŋum !ŋuia.**
   Yes, his beard is white.
7. **eˀe, ɠa //kwa //ŋaila,**
   Yes, he does not dance there.
   ba //kwa //ŋai.
   He (does) not dance.
8. **u ku ɠa //kai, si // kwa //kai.**
   They (the young men) hunt, this one (he) (does) not hunt.

Note: This passage is intended to enumerate the functions of the chief among the Bushmen. The particular one referred to here as **kxoʃi** (a Kgalagadi word for chief) lived in the kraal at the cattle-post. The **!kaˀa** has no real authority, he is merely an adviser.

TEXT 2 (O2): HUNTING

1. Q. **tana ka ta ba, a tana,**
   Say it, you say,
   a ĩsa te /ka, ĩsa . . .
   (the rest indistinct)
   You go (i.e. will) arrow . . .

   A. **ŋ //ka, ŋ //ka //ˀe ɠwa,**
   I cannot, I cannot shoot,
   i //ka //ˀe ɠwa
   (I) cannot shoot,
   i ka, i ka ⊙ˀi ⊙ˀi,
   (I) have a stick,
   i ka //ˀumme //ha:, //ŋao,
   (I) take a small bag, (I) stroll about.
   ka ka //ˀa:,
   (I) sit down,
   ku ka //ˀa: ĩna,
   (I) sit this (i.e. here).
   se /ka hẽˀẽ,
   These arrows, no
   si ɠwa tam.
   (I) thus go home.

2. Q. **a koli ba / ŋei ⊙ˀweisi, ke thã,**
   You see the game, there,
   te koba e ta ti si hoba ˀan.
   what and will do what . . .
   si !koma ka se /kasi.
   This bag and these arrows (do you take them)

   A. **ŋ /ŋei, /ŋ . . .** (interrupted)
   I see, I s . . .
   n kwa /ŋei ⊙ˀweisi,
   I see the game,
   a u ka //ka:, /ŋei ⊙ˀweisi,
   I look, I see the game.
   a kam //kwa //ˀei,
   (I) cannot shoot.
   ma //kwa //ˀei te si ⊙ˀwei,
   I cannot shoot this game,
   sa ke . . . . se /kao /kwi ta,
   . . . . . .
   . . . . . leave them alone.
   na kum //kwe //ŋai . . .
   I go to the hut . . .
   a kum /ka/kasi //ka:
   These arrows, nothing (I can do nothing).

TEXT 3 (O2): KAROSS-MAKING

1. Q. **e, ba ˀan ⊙kwisi sebi**
   You make (small) karosses)
   a ta ta si ta ki . . .
   (This is merely a series of hestitations).
   ta a, ... kwe sebi,
   You, e, e, e, (hesitation) what karosses?

eʔe, ba ʔan
Yes, (you) make,
kwe kuba ka u ʔan sebi.
What (do) you make karosses (with)?

A. **m/ka ǂŋõ: sipi, m/ka ǂŋõ: sipi**
My hands hold the iron, my hands hold the iron.
m/ka ta kwa ǂŋõ: sipi ⊙hoka,
. . . . . .
My hands hold the iron (and) the wood
ta !kxʔam ka təm,
. . . . . .
. . . . gemsbok skin,
ʃu ʃa //kxʔai, ʃu ʃa//kxʔai, ʃu ʃa //kxʔai.
(I) shall sit down and scrape (repeated three times).
si ʔan, /ŋ /ŋ.
This make, no, no (emphatic).
si aJu /ŋ /ŋ.
This work, no, no (emphatic).

Note: The meaning is that he can hold the iron scraper inserted into a wooden handle, in spite of his crippled hand. then scrapes the skin clear of hairs, but he cannot make a kaross. I have actually seen him do it in the camp.

2. Q. **təm, kwe ta ba ʔan sebi,**
The skin, what (you) make karosses,
ta te u ko ǂkai kwe,
—, you get what?
təmla, ʔan kwe təmla.
skin that, work what skin?

A. **⊙ʔe, ⊙ʔe, təm kəm na,**
Duiker, skin (is) this,
!kwa təm kəm na,
springbok skin (is) this,
/ʔei təm kəm na,
. . . . . .
steenbok skin (is) this,
//ǵwa !kxʔam ka təm,
not gemsbok skin,
ma !ki, m m, m, //hã:si.
I give, m, m, m, (hesitation) to man this.
sii ma //kwa sãũsi tu,
These I (do) not work them,
!kxʔam təm ta aJu sãũkwa.
gemsbok skin it (he) works them.

Note: The informant, because of his crippled hand, cannot prepare big skins, but only small ones. The larger ones, like those of the gemsbok, he gives to some one else to make into karosses.

TEXT 4 (O2): THE BUSHMAN CHIEF

1. Q. **ta ta te . . .** (No answer).
(This is a series of hesitations).

2. Q. **ta ta //kwa in ta !khaʔa.**
(Is there) not a chief?

A. **!khaʔa //hã: bi te,**
The chief (is) an old man,
!khaʔa //hã: bi te,
. . . . . .
The chief (is) an old man,
//ka /ʔumte //kai,
(I) do not know of **//kai.**
!khaʔa ta ba //kwa //ʔeixa.
The chief is not **//ʔeixa.**
. . . . . .

Note: These extracts from a more extended paragraph on this subject are quoted as an introduction to the version of Dabe, the **!kõ:** interpreter, which falls far short of the informant's whole story. Below is the Afrikaans of Dabe, with its admixture of **!kõ:** words, quoted in full: "Hy sê, daardie Dabe **na au //ʔebi** (?). Deni 'n ou Boesmantje. Hy is kaptein vir alle (informant interrupts Dabe). Hy is nie kaptein nie, hy is sommer die (hesitation) bois (baas?). Hy is **ho ka** (?)." The translation is as follows: "He says, this Dabe is . . . (?). Deni, an old Bushman, he is the chief for everything (interruption). He is not the chief, he is only the baas (?—master). He is **ho ka.**" This interprètation is given as an example of inadequacy. **//ʔeixa** is the Naron term for chief. Whether Dabe equates it with his **ho ka,** it is difficult to say.

2. (informant's vigorous protest):
Daʊe, Daʊe ĩnsa !kho
Dabe is a Naron

Dave //ha: ka
Dabe is an old man
Dave, Dave !konda ka
Dabe is an old fool
ma:: !kõ:
I am a **!kõ:**
(Dabe interrupts with: **kuba //ʔeixa . .** What is **//ʔeixa . . .**)
Informant resumes:
!kõ: ina, !kõ:, !kõ: ina
A !kõ: this, a **!kõ:**, a **!kõ:** this (meaning himself)
!kõ: na na
A **!kõ:** this, this
_ŋ̄ŋ, ŋ̄ŋ, /ŋtʃʔi /ki
There is nothing of the kind here
/ʔumte //ka:*, /ʔumte //ka:*.
(I do) not know it, (I do) not know it.

Note: This last passage is a very good example of emphatic speech. The word **!kho, !khote** (a longer form) is a term of contempt, used by the **!kõ:** to designate the Naron.

TEXT 5 (BARUCHWE): HUNTING

1. The first paragraph from the recording is omitted. The informant did not seem to understand the question and gave a confused answer, with interruptions from the interpreter. The omission does not affect the remaining paragraphs.

2. Q. **ta, tana ta ka**
. . . say it
ta kuba //kai, si kam
. . . what you hunt, this early
si ba //kame, si ta a /ka
this take, it is arrows
(pause) **/kõ**
kill.

A. **iva //khai, te kwa kam //ʔe**
(I) hunt, (I) shoot early
si ta /ka a, kwia !kasi (?)
it (is) arrows
!koma ka sie /ka (pause)
(a) bag and the arrows
sia /ko/kasi
these (I) throw over (my shoulder)
si //kwe thã (pause), **//kwe**
(I) go there, (I) go away

3. Q. **a u ka /ŋei ⊙ʔweisi, si a ʔoa**
You see game, what (do) you do?

A. **i va /ŋei ⊙ʔweisi, si //ʔa:**
(I) see game, (I) lie down
kwa /ŋei ⊙ʔweisi, si sã /ka
(I) see game, (I) put down (the) arrows
si sa //ʔei, /kõ //ʔei ga si
(I) stalk, near stalk it
si kuma //ʔei
(I) shoot quickly

Note: The text does not mention the bow, which, of course, he took with him. The double verb **/kõ //ʔei** means literally to stand near+to stalk, that is to stalk quite close to the game, as the Bushman arrow does not carry very far.

4. Q. **ta u ka //ʔe, si sa /kõ, si sa //kum**
You shoot, it will kill, it will hit
si sa di kwe . . . (the rest indistinct)
this what (you) do?

A. **a va //ʔei, si ta //kum, sita /kõ**
(I) shoot, this is hit, this is kill
kwa sa, naʔa //ʔum
(I) go, this pick up (my quiver)
ʃo ʃi ina na //ʔum
(I) sit this come pick up
ko si ŋ//ŋasi
(I) come (to the) hut (i.e. home)

5. Q. **u kua sa si sa /ŋei**
(interrupted by informant: **e,** yes)
You go see this
⊙ʔweije, e/kõ, e kwa . . . (indistinct)
(the) game (is) dead

A. **m //ʔei, m//ʔei, m//ʔei, m//ʔei hã**
(I) follow the spoor, follow up, follow up, follow up and (then) stand
m //ʔei, m//ʔei, m//ʔei //kai hã
follow up, follow up, follow up, stand (for) the game
⊙ʔwisi, !ŋwa, ⊙ʔweisi ka
The game, the spoor (of the) game
e kwa //ʔei ia !ŋwa
(I) follow up, the spoor

e kwa //ʔei ia !ŋwa
(I) follow up the spoor
/kõ:*, /kõ:*
(It is) dead, dead
. . . kabe ti ! ŋwa (?)
. . . . the spoor
a //kai
Cut it up (i.e. the meat)

6. Q. **. . . . di kwe**
(You) do what?
kuba ka //ʔei ⊙ʔweisi
(you) what hunt game?
ka te a kwe təmla, ʔoa təmla
it you what skins (?)

A. **i ba kwa //ʔei ⊙ʔweisi** (pause)
We shoot game
⊙hŋ te hã: (pause)
duiker it is (lit.: stands)
u ba e kwa //ʔei ⊙ʔweisi
(You) shoot the game
si //kaJi e si !kai
This (is) wildebeest, this (is) steenbok

7. Q. **a /ka ke //kãŋa, ʔan sia //kãŋa**
Your arrows (are) poisoned, (you) make this poison?
a /kasi a //kãŋa
Your arrows (are) poisoned?

A. **na u ka //kãŋa** (pause)
I poison
u ku ǂkai //ǥãŋa
They have poison
u ku ǥa //ǥãŋa, //kwasi, u /ʔa
You breathe poison, you die
u ku //ǥãŋa //kwasi, u /ʔa
You breathe the poison, you die

TEXT 6 (BARUCHWE): KAROSS-MAKING

1. Q. **ta, sebi, ta kwe ʔan**
Karosses, who makes (them)?
ta, ta, kwe ba ʔan ta
who makes them
takae kuba ʔan
women make (them)?
ta:ʔa kuba ʔan
men make (them)?

A. **ta, ta:ʔ a ǥuJu //kxʔai**
Men scrape (the skins)
ta, ǥwa //ʔei ka ⊙ʔweisi
(they) shoot the game
u /khau si /ʔei, nau /khau ka
I sew this steenbok, I sew them
⊙ʔwi, ⊙ʔwi, ha ka, e/khau
small, small they are, (I) sew
e //kai, //kai, /ʔom ka
scrape, scrape, scrape, soften them
m:: !ki ŋ/ŋ /ki /ʔa
I give then to my wife

Note: The different phases of the manufacture are not listed in strict sequence. This is often the case with Bushman descriptions. Note also the frequent repetitions.

2. Q. **ti bi /ne ti kukama**
You see (the) gemsbok
o ha si təm, e kuba ʔan sebi
you (have) the skin, how (you) make karosses

A. **e si ǥu ǡi !kxʔam təm sebi**
We make gemsbok skin karosses

Note: **kukama** in the first line of the question is the Tswana name of the gemsbok.

3. Q. **⊙ʔwa ʔan ta kutu**
Small (ones), (do you) make them
kwe ta ba ʔaJu ʔan sebi
(do you) work (and) make the karosses

A. **si ⊙ʔwala ⊙hã təm**
These small (ones) (are) duiker skins

4. Q. **e xati e** (pause) **ka**
(question) . . . . it
ho (?) **ka təm kaʔa**
. . . . (?) all skins
kwe ha ka təm, ka ba ʔan sebi
what skins (you) make karosses (with)?

A. **e ka be !ŋai ka ba**
It (is) hartebeest

5. Q. **u//kai kuba ʔanna sebi** (pause)
You make karosses
ke thã, te //kabi kaʔa
(you) understand, (you) have all
ko //kam tuku
(you) carry them
u//kai ǂkabe ʔan sebi
(you) have them make karosses

te /kwa kaba ⊙hã ka
(you) sew them duiker (skins)
kuba ʔan . . . (indistinct)
What (do you) make . . .

A. **ma ǂkaba ⊙kwi təm**
I have small skins
sí ka ŋǂkaisie
These are large
kui təm /ʔei
Small (ones) skins of the steenbok (?)
na /kwa kəm təm, /kwa ⊙hã ka
I sew the skins, sew duiker (skin)
na kəm beŋ di
I make (karosses)

5a. Q. **u//kai /kwa kutu, e /kwa kutu**
You sew them, sew them?

A. **sia /kwa //keike, m /kwa ko //keike**
(I) these sew, I sew them together

6. Q. **u ǂkaiba ʔan /kwa //keike**
You have, work, sew (them) together?
tana ta u hoa ka
Say how you do it

A. **si ka ba !gum /kwa di si**
We (with) sinews sew do this
si ⊙hão /kwai te
this (is) duiker (sinews) (we) sew it (with)

7. Q. **u//kai ʔanna /kwa !ko**
You make, sew (with) needles?

A. **u /kwa, u ǂkabe di !xo**
You, sew, possess, do (with) needles

PREHISTORY AND ARCHAEOLOGY IN AFRICA

Dr J. Desmond Clark, Curator of the Rhodes-Livingstone Museum in Livingstone, Northern Rhodesia, has recently prepared two memoranda on means for furthering the progress of prehistory and archaeology in Africa. Both have been circulated by the Joint Secretariat of CCTA and CSA.

The first endorses the recommendation by CSA that a panel of experts, i.e. geologists, soil chemists, palaeontologists, anatomists, prehistorians and scientists in various other disciplines, should be set up in an attempt to correlate for Africa as a whole (the continent richer than any other in the remains of prehistoric cultures) the broad outlines of cultural and climatic succession that have thus far been established only regionally. Dr Clark is of the opinion that the Council of the Pan-African Congress on Prehistory, of which he is at present the General Secretary, would be an appropriate body to make suggestions regarding the nomination of the members of the panel and the choice of key sites to be examined by the panel. He hopes that it will be possible to have the planning of this project well advanced before the Fourth Pan-African Congress on Prehistory to be held in Leopoldville in August, 1959.

The second memorandum deals with another recommendation of CSA, viz., the extension of the scope of the Atlas of Prehistory for Southern Africa to Africa South of the Sahara or, if possible, to the whole continent. Here Dr Clark recommends the extension of the existing Atlas Committee to include members who could contribute maps covering the Congo Basin, West Africa, French North Africa and the Sahara, and North-East Africa. The area south of 8°S is already being covered, with the exception of Angola and Mozambique in respect of which arrangements have not yet been finalized. The procedure will be for regional experts to plot on large-scale maps of their areas of special knowledge the distribution of the main prehistoric cultures, and for this information to be transferred to smaller base maps (probably on the scale of 1:10,000,000) for publication.

NOTES AND NEWS

OBITUARY:
DR EDWIN W. SMITH

In the passing of Dr Edwin W. Smith in England on December 23, a great friend of Africa and the Africans has gone to his eternal reward. Edwin Smith, in dedicating himself to his Master's service, laid all his many talents on the altar, and they were abundantly used, especially on behalf of the Africa he loved so well.

He was born in South Africa, of Primitive Methodist Missionary parents, in the manse at Aliwal North in 1876. He went to England for his education, and entered the ministry in 1897. But his call was to missionary work, and Africa was on his heart. He served first in Basutoland, but the call was further afield. The country north of the Victoria Falls was being opened up to the Gospel by pioneers of the Baila-Batonga Mission; and, as soon as the conclusion of the Anglo-Boer war permitted it, Edwin Smith and his young wife (he had married Miss Julia Fitch in Cape Town) went as missionaries to the Ila people of Northern Rhodesia. They reached the Mission Station of Nanzela in March 1902. In November of that year, with heavy hearts, they buried their baby boy Thabo ("Joy").

Edwin Smith was a great worker as a practical missionary. He and his wife opened up a new station at Kasenga in 1909. But his greatest contribution to the Mission was perhaps in his linguistic abilities. In 1906 he produced his *Scripture Stories* in Ila, to be followed by Mark's Gospel in 1907. In that year, too, he published his *Handbook of the Ila Language*, a scholarly piece of work, which, together with *Ila Made Easy* (1914), was of untold value to missionaries learning the language. He continued with Bible translation, and took the chief part in the preparation of the Ila New Testament, which was published in 1915. Smith had come to the Ila people with a knowledge of the Southern Sotho language ("Sesuto"), and it is not surprising therefore that he introduced disjunctive writing into Ila. His grammatical work employed that system; but it is noticeable that he introduced the conjunctive system in the case of verb tenses in the New Testament of 1915. (The conjunctive system was later used almost completely in the 1937 revision of the Testament, a hyphen being used in the case of possessive and locative prefixal forms). Smith's grammar is still standard for the language; it was closely followed by J. R. Fell when he wrote his *Tonga Grammar* in 1918. Edwin Smith showed a sound grasp of the grammatical structure of Ila, and perhaps his greatest contribution in it was his very full treatment of the "Copula". Later he included a very able chapter on the Ila language in Volume II of *The Ila-speaking Peoples of Northern Rhodesia*, in which he gave considerable information about ideophones, recognizing that "they are a new part of speech", but not deciding on a name for them. In this chapter he had become almost fully conjunctive. His following chapter, dealing with Ila proverbs, is a masterly presentation of a most interesting subject. Had he continued at Bantu language work, there is no doubt that he would have made a much greater contribution in this field of research.

Mrs Smith was beloved of the Ila women; she was called Mamosa, "Mother of kindness".

In 1915, Edwin Smith returned to England to volunteer as a chaplain to the Forces. He served for a year in France, and then received an appointment with the British and Foreign Bible Society. His linguistic ability once more showed itself. He was sent to Rome, and within six months was touring Sicily preaching in Italian!

One of the great results of his missionary experience was the monumental two-volume *Ila-Speaking Peoples of Northern Rhodesia*, which he wrote in collaboration with Captain A. M. Dale, a Government official. Smith's part, however, was by far the greater in this work, which became a much-used text-book in Social Anthropology, ranking with the great work of H. A. Junod, *The Life of a South African Tribe*. Smith established

himself as an outstanding anthropologist, becoming President of the Royal Anthropological Institute in 1934. His anthropological studies, focussed on Africa, dealt particularly with two aspects: African religion and race relations in Africa.

In 1922 the writer of this memoir had the privilege of attending a course of lectures on African religion, which Edwin Smith gave to missionaries in London. He was most stimulating. Some of his research in this direction is reflected in his books, *The Secret of the African* (1929), *African Beliefs and Christian Faith* (1936), and the symposium he edited in 1950, *African Ideas of God*. Until the appearance of these studies but scant attention had been paid to the subject of African indigenous religious beliefs. In fact, the absence of religious buildings, noticeable shrines, public worship, or any organized priesthood, particularly in Africa south of the Sahara, led the casual traveller to the conclusion that the Africans had no religion. The lectures and the publications of Edwin Smith proved the contrary, and revealed that religion permeated the whole life of the tribal African.

Two of his books dealing with race relations quickly gained world-wide recognition: *The Golden Stool* (1927), and his important biography, *Aggrey of Africa* (1929). The former of these books constituted a plea for understanding the African, and understanding him with sympathy. It revealed the tragic mistakes that can be and have been made by a governing or administering authority in riding roughshod over a people's cherished beliefs, and wounding susceptibilities, because of ignorance of the history, institutions and mode of thinking of a subject people. It was a book that influenced policy. The latter, *Aggrey of Africa*, immortalized the short life of one of Africa's great sons, "the finest interpreter which the present century has produced of the white man to the black, of the black man to the white". This book has become known the world over. Only a few weeks ago a prominent missionary told the writer of this memoir that *Aggrey of Africa* brought the missionary call to him, which resulted in his coming to Africa as a missionary. It has done so to others; and it has had a great and beneficial effect upon race relations.

Edwin Smith's contribution to the work of the Bible Society was a most valuable one. He became Editorial Superintendent, and many Scripture translations in African languages passed through his hands. His grasp of the linguistic position, and his reverence and zeal for God's Word, are shown in his delightful little book, *The Shrine of a People's Soul*, published in 1929. Another book of his, well worth reading, is *Knowing the African* (1946).

It can be gathered, from the above, that Edwin Smith soon found the power of his pen. He became a great writer. He wrote on missionary work, historical and informative books: *The Way of the White Fields in Northern Rhodesia* (1928), *The Christian Mission in Africa*, and in 1950 *The Blessed Missionaries*.

Missionary biography especially gripped him; he had a zest for historical research. In 1925 he wrote *Robert Moffat, One of God's Gardeners*. He periodically came to South Africa in search of materials, visiting the scenes of past missionary exploits, in Basutoland, Bechuanaland and Natal. In 1939 appeared *The Mabilles of Basutoland*, a valuable source-book for the history of the Paris Evangelical Missionary Society in Basutoland, and for the political history of Basutoland itself. Later he wrote *The Life and Times of Daniel Lindley*, the story of the American missionary who was in Natal at the time of the massacre of Retief and his men by Dingane, and who became spiritual leader to the Voortrekkers who settled in Natal. Edwin Smith's last great work, published in the year of his death, *Great Lion of Bechuanaland*, the biography of Roger Price, is a book of great historical value; it records the tragic Helmore-Price expedition to the Zambesi of 1860, and contributes valuable information on the history of the Tswana chiefs and tribes, apart from that of the London Missionary Society and of the colourful life of Roger Price himself.

Five years ago Edwin Smith lost his life's partner. It was a heavy blow. Now his

loneliness is over; and the man who gave so unstintingly of his talents to forward love and understanding for the African, and who worked so hard for the spread of God's Word throughout Africa, has heard the Master's "Well done, good and faithful servant". These words he himself had rendered into the Ila language he loved to speak: **Wabosya, umuzice mubotu, musyomesi.**

He leaves an only daughter, Mrs Howard Jones, ("Natsi"—Comfort) who was a great joy and help to her father after his bereavement. To her we extend sincere sympathy.

CLEMENT M. DOKE
Alice, C.P., March 1958

DR RAYMOND ARTHUR DART

1957 *Viking Fund Medallist in Physical Anthropology*[1]

The distinguished scientist whom the American Association of Physical Anthropologists is honoured to present tonight for the 1957 Viking Fund Medal in Physical Anthropology, is known throughout the present world. His identification with the primitive hominid, *Australopithecus africanus* Dart, carries his name backward in time to the beginnings of human evolution. His place in the future is secured by the permanent significance of *Australopithecus*, the legacy of teaching and research materials he has assembled, and the diffusion of his influence through his own and succeeding generations of students. The work of Raymond Arthur Dart might thus be said to span human existence. How rich and how rare a fulfilment for a scientific career.

Dr Dart will retire from the chair of anatomy at the University of the Witwatersrand in Johannesburg, South Africa, at the end of 1958, after 35 years of service. Jesus of Nazareth said, "No man, having put his hand to the plough, and looking back, is fit for the kingdom of God." (*Luke*, 9: 62). During his long course Dr Dart has put his hand to many ploughs and never looked behind. His scientific publications began to appear in 1920 and at the end of 1957 numbered 120 titles, which reflect broad comparative anatomical and anthropological interests. The Award Committee of the A.A.P.A. noted particularly that

> He recognized the significance of the finds made at Taungs in 1925 and defended his interpretation of *Australopithecus* against wide-spread scepticism; he continued to search for, and discover, hominid fossils; and, thus, he has led the way for the intensive research in physical anthropology in South Africa today.

Above and beyond these contributions in his special field he has played a conspicuous part in the building up of the Medical School of the University of the Witwatersrand of which he was dean from 1925 to 1943, and in medical education in his part of the world in general. He has been an important contributor in the establishment of dental education, physical therapy and occupational therapy in South Africa. He helped to establish the South African Nursing Council and to establish various journals, not least among which is the *South African Journal of Medical Sciences*.

The research collections which he has assembled are unique in scope and content. They include about 600 life-masks representing most of the tribes and races from the Cape to Cairo; over 500 death-masks of Africans, mostly southern Bantu-speaking Negroes; and nearly 2,000 human skeletons from laboratory cadavera of which the sex, race or tribe, and hospital age are known. This human collection compares favourably with those assembled by the late Dr T. Wingate Todd at Western Reserve University and Dr Robert J. Terry at Washington University in this country. Dr Dart's collections also include over 900 animal skeletons representing all vertebrate classes with a fine selection of African orders of the mammalia.

[1]Citation read at the Twelfth Annual Dinner of the Wenner-Gren Foundation for Anthropological Research for the presentation of Viking Fund Medals and Awards, Hotel Plaza, New York City, March 7, 1958.

Dr Dart's compelling personality has made him an inspiring teacher. His fascination for his students has resulted in an intriguing lore of apochryphal tales. One of these is to the effect that when in his lectures he desires to explain the effect of brachiation on the human torso, he himself will spring from the lecture platform to a ceiling pipe and brachiate along the room with gibbon-like agility, lecturing all the while. These demonstrations are described as unforgettable by those who have been so fortunate as to witness them.

It is particularly significant that many well-known scientists who got their start under Dr Dart have become distinguished not only in anatomy and anthropology, but in a variety of fields. Among them are: at the University of Cape Town, Dr L. H. Wells, professor of anatomy and formerly reader in physical anthropology at Edinburgh University; at Makerere Medical College, Kampala, Uganda, Dr Alexander Galloway, professor of anatomy and dean of the Medical Faculty, and Professor Cecil P. Luck, professor of physiology; at the University of Oxford, Dr J. S. Weiner, reader in physical anthropology; at the University of Natal, Durban, Dr Theodore Gillman, professor of physiology and Dr Maureen Dale, senior lecturer in pharmacology; at the World Health Organization in Geneva, Dr Harry S. Gear, deputy director; at the University of Stellenbosch, South Africa, Dr Jan Toerien, senior lecturer in anatomy at the newly created Medical School; Dr James Gear, director of the South African Poliomyelitis Research Foundation and an authority on poliomyelitis; at the University of the Witwatersrand, Johannesburg, Dr Joseph Gillman, professor of physiology and one of South Africa's leading physiologists; Dr Christine Gilbert, reader in embryology; Dr H. B. Stein, professor of clinical pathology, and Dr Phillip V. Tobias, senior lecturer in anatomy.

It would be expected that a scientist of such broad perspectives and attainments as Dr Dart would be well known for his hospitality to guest investigators and visitors to his laboratory. There are many who attest that it would be impossible to receive kinder consideration or greater courtesy than is his custom.

Our distinguished honoree was born February 4, 1893, at Toowong, Brisbane, Australia. He received his early education at the Ipswich Grammar School in Queensland and graduated with the B.S. from the University of Queensland with honours in 1913. He was awarded the M.S. by Queensland in 1915 and received his medical degree, M.B., Ch.M., with honours, from Sydney University in 1917. The following year he was demonstrator of anatomy and acting principal at St. Andrew's College, Sydney. After this he spent a year as guest surgeon at the Royal Prince Alfred Hospital in Sydney. He first came to Europe as a captain in the Australian Army Medical Corps in 1918 and saw service in England and France. Following World War I, he remained until 1920 as senior demonstrator of anatomy at University College, London. The year 1920-21, he spent as a fellow of the Rockefeller Foundation at Washington University in St. Louis and returned to University College London, for another year as senior demonstrator of anatomy and lecturer in histology. In 1923 he received the call to his present post as professor of anatomy at the University of the Witwatersrand.

Dr Dart has received many honours and held high office in numerous scientific organizations. It will suffice to mention that he has been president of the Anthropological Section of the South African Association for the Advancement of Science, which awarded him its gold medal in 1939; the Anthropological Section of the Pan African Congress of Pre-history, the South African Archaeological Society and the South African Association for the Advancement of Science.

In 1949 he was a guest lecturer at the Viking Fund Seminar in New York and public lecturer for the Lowell Institute in Boston.

Recently it has been learned that there are plans for the establishment of a RAYMOND DART INSTITUTE FOR THE STUDY OF MAN IN AFRICA, to be promoted by Dr Dart's former students and friends. It is a

great joy to the American Association of Physical Anthropologists as it presents him for the 1957 Viking Fund Medal to have this moving evidence that his work and spirit will continue to benefit mankind indefinitely.

W. MONTAGUE COBB, *President, American Association of Physical Anthropologists*

PROPOSED RAYMOND DART INSTITUTE FOR THE STUDY OF MAN IN AFRICA

At the end of 1958, Professor R. A. Dart will retire from the Chair of Anatomy in the University of the Witwatersrand, Johannesburg—a position which he has filled with lustre for 35 years. It would require many pages to sketch, even in outline, all that the medical, dental and allied professions in South Africa owe to him. Nor would space permit even a cursory survey to be made here of his immense contributions to research on the origin of man and on modern man in Africa. Some part at least of such an account appears elsewhere in this issue. However, it would not be out of place to refer here to the stimulation Professor Dart has given to great numbers of his colleagues and of students who have passed through his hands. It is in this rôle—as a maker of men, as one who always elicited the best from his students and associates—that Professor Dart gave his finest gift to a young South Africa in which the medical, dental and nursing professions were budding and those of physiotherapy and occupational therapy not yet conceived; in which research was emerging from its cocoon and in which South African anthropology was awaiting the fertilizing impact, not only of the savants from abroad, but of our own graduates, equipped and inspired to promote the advancement of knowledge.

Among the members and research students of his department, who have subsequently achieved distinction, may be mentioned the late Dr Gordon Laing, the late Professor L. R. Shore, Professors Alexander Galloway and Lawrence H. Wells, the brothers Gear, Professors Joseph and Theodore Gillman, Dr J. S. Weiner and Dr G. W. H. Schepers, and Professor J. C. Middleton Shaw. It is well known that the first Dental Faculty in South Africa stems directly from Dart's appointment of Shaw as a Senior Lecturer in Comparative Odontology in the Department of Anatomy, at which time Shaw produced his great work on the teeth, jaws and bony palate of the Bantu-speaking peoples of South Africa.

It is with such thoughts in mind that a group of medical and dental men, past and present students, and colleagues of Professor Dart, have conceived the idea of commemorating his work by the establishment, within the framework of the University of the Witwatersrand, of an Institute for the Study of Man in Africa. Briefly, the objectives would be as follows:

Primarily, the Institute would aim to advance the study of the living peoples of Africa in health and disease. This would embrace the bodily structure, function and pathology; diet and nutrition; tropical diseases and other medical problems; physical anthropology, heredity and racial composition; the climatic adaptations of man at the Equator, in the Tropics, and in the Sub-tropics, in the forests, deserts and mountain regions; dental eruption, attrition and decay. So much for the physical well-being of the people. This leads on to the psycho-social make-up of the peoples of Africa, their attitudes towards illness, as part of their general pattern of cultures, including also art, music and languages, tribal and kinship structure, and population problems.

Secondly, the Institute would try to foster the study of Man's ancestry in Africa—the fossil men, their evolution and migrations and hybridizations, the animals and plants and the changing climates associated with them. Included here, too, would be a study of their way of life, stone and bone implements, burial customs and artistic creations.

South Africa would seem to be ideally situated for the establishment of a continentally-important Institute of this character and, within the Union, no better position than Johannesburg could be found. Here, within a narrow radius, are to be found the fossil ape-men, the *Australopithecinae* from Sterkfontein, Taungs and Makapansgat; the Bushmen, whose straggling remnants occur at Lake Chrissie to the east and in the Kalahari to the west of Johannesburg; both rural Bantu tribes and urbanized, detribalized Africans undergoing acute cultural contacts in their hundreds of thousands; Coloured and Asian peoples; and White South Africans of varied national origin and of all economic brackets. Thereapart, the facilities existing at the University of the Witwatersrand, both material and personal, as well as the programme of such researches already being carried out from this institution, would make it an obvious choice as the seat of the proposed Institute. Nevertheless, although it is proposed that the Institute be established within the framework of this University, a cardinal aim would be to co-operate fully with and to extend all the Institute's experience and facilities to other universities and research institutes which pursue similar research objectives. The Institute would thus come to assume a national character in much the same way as other specialized research institutes at various South African universities.

From what has been said, it is clear that one of the foundations upon which the Institute should rest should be *Research*. Twofold in character, research would be both in the laboratory, on the accumulated materials, and in the field. It is envisaged that the Institute would promote a series of multi-purpose field expeditions, in which the combined efforts of physical and social anthropologists, linguists and ethno-musicologists, medical and dental scientists, and others, would be pooled. It is to be hoped that the establishment of the Institute and the inauguration of its research programmes would attract many more young men and women into these vital fields than is the case at present. In this way, personnel trained in field-survey methods would be produced, to the benefit not only of South Africa, but of the African continent, which is sorely in need of such investigators everywhere south of the Sahara.

Aside from research, there are two other basic functions of the Institute, namely *Education* and *Conservation*. The educational function would be both an intra-mural one, in relation to students and trainees, and extra-mural, in relation to the public. Conducted tours of the Museum for high school pupils and other organized groups, recitals of African music, films and illustrated talks, would all help to educate the public in the problems of Africa and her peoples. The possible integration of the Institute with the proposed civic developments in the Braamfontein area of Johannesburg might lead the Institute to be seen as a great civic asset, in the fullness of time to become a national prestige point.

The third function of the Institute would be to serve as a museum and conservatory for Africana, especially those material objects, weapons and instruments, and recordings, which over large areas of the continent are rapidly vanishing before the onslaught of detribalizing and civilizing influences. These objects and symbols need to be protected, enshrined and perpetuated, before it is too late. Already several large and valuable collections exist on the Witwatersrand and the nucleus of a museum is at hand without much searching for and amassing of new materials. To give one example: in the Department of Anatomy in the University of the Witwatersrand is a unique collection, built up over 30 years by Professor Dart and his staff, of 600 life-masks and 500 death-masks, representing many African tribes and races from Cape to Cairo. Adequately displayed against a background of regional maps and illustrations, this collection alone would provide a magnificent starting-point, to which could be added the collections of Bantu cultural material, musical instruments, African music recordings, the skeletons, dental impressions, photographs, fossils and implements, disease and diet records, and many other categories of objects. Finally,

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the museum should serve as a clearing-house for information, statistics and publications on all the fields which it will handle.

The project is an ambitious one, but the organizers believe it is not out of proportion to the stature of the man whom it will commemorate—and certainly, it is in keeping with the magnitude of the problems of Man in Africa. Already the proposal has received the support of the Medical Graduates' Association, Dental Graduates, Convocation, Students' Dental and Medical Councils, Students' Representative Council, the Occupational Therapy Society, and the South African Society of Physiotherapists, as well as of a number of professors and other university staff members most closely concerned.

As a first step towards the realization of this objective, it is proposed to raise the sum of £10,000 from past and present students and colleagues of Professor Dart, friends, and all others who have the interests of the proposed Institute at heart. Once this sum is to hand, the appeal will be extended to the large financial trusts and research foundations from whom it is hoped that the greater part of the funds will be forthcoming. We therefore appeal to the readers of *African Studies* in South Africa and elsewhere to see in the proposed Institute a project worthy of their support and to contribute accordingly. Cheques should be made payable to the Raymond Dart Institute Fund and should be sent to the *Medical Graduates' Association, 14a Kotze Street, Hospital Hill, Johannesburg*. Bankers' stop order forms are obtainable on request from the same address.

PHILLIP V. TOBIAS,
Chairman,
Committee to Establish an Institute for the Study of Man in Africa.

BOOK REVIEWS

An Analytical Grammar of Shona. G. FORTUNE. Longmans, Green & Co., London. 1955. xv+443 pp. 21s.

Elements of Shona. G. FORTUNE. Longmans, Green & Co., Cape Town. 1957. xvii+222 pp. 10s. 6d.

Shona linguistic studies owe a great deal to the work in recent years of Dr G. Fortune. Apart from various shorter papers and contributions in journals, he has given us first **Ndevo yeŋombe luvizho and other Lilima Texts**, Communications from the School of African Studies, University of Cape Town, No. 21, 1949, which includes English translations and over 30 pages of grammatical notes on this peripheral dialect; then a revised edition of *Biehler's Shona Dictionary*, Longmans, Green & Co., Cape Town, 1950; and now the two works under review here, the first a formal textbook of grammar, the second a manual for English-speaking foreigners wishing to learn Shona.

The *Grammar* is modelled fairly closely on the pattern established by Professor C. M. Doke and subsequently adopted by a number of other Bantuists, especially in South Africa. Some nine or ten major grammatical studies of Bantu languages, as well as several minor ones, cast in the Dokeian mould, have now been published. Whatever defects this descriptive system may have—and there is no denying that it has a number—it has guided and stimulated research workers to the production of a series of Bantu grammars which, as a group, are unsurpassed for accuracy, comprehensiveness and completeness. No other selection of grammars of similar number in the Bantu field provides such detailed and complete data on the phonological and morphological structures of the languages treated. Admittedly syntax has not always been examined, while tonal structure has been seriously neglected in every case. Nevertheless, this is no mean achievement in view of the unfavourable conditions and the lack of research facilities for South Africa's small coterie of Bantuists, all of whom are heavily burdened with teaching and administrative duties which leave very little if any time for research.

Dr Fortune's *Grammar* contains the usual series of chapters, two on sounds and sound changes, and twelve devoted to the various "parts of speech". There is no section specifically treating of syntax, though a good deal of syntactical data is incorporated in the chapters on the various word-classes. Only a few passing references are made to tonal structure; but we know that Dr Fortune has since done a great deal of work on this complex aspect of the Shona language, and we look forward to seeing the published results of these further researches in due course.

The phonology and morphology have been analysed and described, according to the method adopted by the author, in the minutest detail. Yet there is a strange inconsistency about the minuteness of the analysis, an inconsistency which characterizes all the other works based on the same pattern, but is particularly striking in this one. In the "morphological" chapters, dealing with the parts of speech, the structuralist will find numerous instances of failure to recognize distinct morphemes as such when they occur in particular combinations, and, instead, a tendency to treat these together, in their combinations, as "formatives". In other words, the segmentation into minimal structural units, at the morphological level of analysis, is often incompletely or inconsistently effected. Examples of this are the "possessive concords" which actually consist of two morphs, the first concordial, the second/**-a-**/; the verbal"derivative suffixes" (see p. 200), all consisting of at least two morphemes, a derivational "extension" plus the basic conjugational suffix /**-a**/; and the "basic stem" itself of the verb, which is composed of a radical and the suffix /**-a**/ (see also note 4, pp. 235f., and p. 262, where the correct morphemic division is stated and then passed over, presumably in order to conform with what has become traditional in the Dokeian model).

By contrast, in the phonological sections the segmentation is carried out in the most microscopic fashion; and here the failure is to recognize that the minimal structural units, or phonemes, frequently consist of not only one, but of two or more phonetic segments. In the chapter on "Phonetics", sections are devoted to vowels, vowel combinations, semi-vowels, consonants (plain and compound), consonant combinations, and consonant-semi-vowel combinations. Whatever their acoustic and articulatory features may be, the "semi-vowels" function in the structural system of Shona as consonants, and they would therefore be best treated as such. The "plain consonants" charted on p. 6 include many such as /**p, b, f, v, m**/, etc., which obviously have phonemic status; and also several such as [**ç, j, x, h**], etc., which "are found only in combination with other sounds"—and which therefore cannot be more than sub-phonemic entities of some sort, either allophones or simply segments, parts of compound or polysegmental phonemes. The "compound consonants" (p. 10) are implosive [**ɓ, ɗ**] and labialized [**s̩, z̩**], with double "articulation performed *simultaneously* at more than one point". If there be double or multiple articulations, performed *not simultaneously but successively*, the results are termed "consonant combinations", e.g. [**ts, bv, bg, mb, mfi, mbg, ts̩**], etc.,or"consonant-semi-vowelcombinations", e.g. [**bw, kw, tkw, tskw, dz̩gw**], etc.

What Dr Fortune's views may be of the phonemic status of any of these various types of consonant structures, plain, compound or in combination, we do not know. The charts on pp. 6 and 10 are clearly not phonemic; and though the term "phoneme" or some derivative thereof is used a few times in the book, it is in quite inconclusive and inconsequential fashion. In the case of the "vowel combinations", as in /**-taura**/ (speak), we have apparently the juxtaposition or clustering of two distinct vowel phonemes. If he is consistent in his use of the term "combination", this would mean that Dr Fortune views his "consonant combinations" also as clusters of phonemes; but one cannot be sure, for elsewhere he refers to some of them as affricates (§89). The question is one of very considerable theoretical and practical importance, not only for Shona, but also for other Bantu languages and for general linguistics. It cannot be pursued any further here; but in my opinion each of these "consonant combinations" constitutes a single compound or polysegmental phoneme, *not* a cluster of phonemes in sequence. The alternative seems to be to treat all affricates, nasal compounds, etc., as clusters and not as unit phonemes, and concomitantly, to revise radically our ideas about the typical CV syllabic pattern of Bantu languages—for we should then have to recognize syllables consisting of a nucleus V with as many as five clustered consonants preceding it!

The same microscopic analysis is presented in the chapter headed "Phonology", which, incidentally, includes an indiscriminate mixture of phonetics, phonemics, morphophonemics, dialectal variants, synchronic and diachronic data and processes, and, above all, purely *morphological* processes. (Except for the last, this is again a common feature of other works cast in the same mould). The morphophonemic processes are classified and described in terms of the results, viewed phonetically, of the sound changes; and we are presented with a fascinating array of new terminology for this purpose. In this preoccupation with the phonetic trees and even their leaves, the existence of various morphophonemic woods is almost completely overlooked. For example, aspects of the morphophonemic process associated with the class 9 noun prefix are dealt with under Elision, Bilabialization, Supradentalization, Prepalatalization, Velarization, Emergence, Frication, Affrication — and presumably should also be under Explosivization, e.g. /**N+ʋ>mb**/ as in /**mboni**/ (pupil of eye)< /**N-+-ʋona**/ (see).[1] Surely Shona is sufficiently complex already, without adding, by fragmentation and hair-splitting of this type, to the difficulties of the learner of the

[1]Vide §75 (i), p. 36. Unaccountably we have not been offered the term "Labiodentalization", to describe the fate of the nasal prefix in /**mvuto**/ (bellows) < /**N-+-vuta**/ (blow).

language, or of the linguistician seeking the structurally pertinent facts thereof! Or are we committed, in this age of atomic fission, to reducing *everything* to a state of minutest possible disintegration?

Finally, the tendency to view the whole language through the phonetic microscope has resulted in the treatment of purely morphological substitutions as phonological processes. Thus "Gradation" has been adopted (p. 29f.) as the term for "a change of vowel for the purpose of grammatical inflection", and used in reference to the substitution of the suffixal morphemes /**-e, -i, -o**/, etc. for the "terminative" /**-a**/ of verb "stems".[1] Following this idea to its logical conclusion, one should argue that in Zulu this /**-a**/ changes to the perfect /**-ile**/ or to the causative /**-isa**/, etc., by a phonological process; or that the substitution of noun prefixes in the formation of plurals from singulars, or of diminutives or augmentatives, should similarly be stated in phonological terms. The confusion arises because of the tendency to view "stems" as "formatives", and usually "formative" has been equivalent to what in modern linguistics is termed a morpheme. The time is long overdue for us to think less in terms of verb stems (or for that matter, of stems in general), and more in terms of roots or radicals and suffixes.

None of my criticisms should be taken to indicate that Dr Fortune's *Grammar* is in any way inferior to any of the other similar works referred to above as being cast in the same mould; on the contrary, it is considerably better as a source-book and as a descriptive study than several of them. The criticisms offered here apply, for the most part, to all these other grammars also. But because Dr Fortune has presented his analysis so meticulously, in such minute detail, one is the more forcibly struck by the unsatisfactory, inadequate or extreme features of his model, with its repetitiveness and concern for minutiae of doubtful relevance while significant structural entities are overlooked or confused. On the other hand he has given us a most valuable exposition of many aspects of Shona which had not been described before, e.g. his description of the noun classes and the extensive commutability or superimposition of prefixes, with "primary and secondary functions", which seems to be more highly developed in Shona than in other Bantu languages.

The most elegant solutions to many of our analytical and descriptive problems in Bantu linguistics are by no means ready to hand. If we are to achieve satisfactory results, however, it is clear that we must adopt a thoroughly structural approach, with its precise analytical procedures and concise descriptive techniques, and eliminate the prolix and repetitive types of statements we have indulged in hitherto. We must exclude the semantic and other notional definitions, criteria and categorizations, and analyse our languages in terms of their own structure, without foreign preconceptions. This, after all, is what Doke sought to achieve in his "Bantu grammar for Bantu languages"—a structural analysis; and he took us a long way towards the achievement of this aim, but, not at all surprisingly in view of the magnitude and complexity of the task, much remains yet to be done. Having been led away from the classical tradition in grammatical analysis for Bantu languages, South African Bantuists must beware lest they become too firmly attached to another model and ignore the developments of linguistic science elsewhere, while also neglecting themselves to continue the quest for greater refinement in analysis and description of what is structurally relevant.

In phonological matters too, a structural methodology would eliminate the current confusion—in the descriptive work of authors at least, if not also in their whole outlook—between phonetics, phonemics, dialectal variations of pronunciation, and morphophonemics (and even pure morphology), and between synchronic and diachronic aspects of all these. The basis of the whole phonological description should be the significant sound units, the phonemes, not allophones or

[1]Nevertheless, Dr Fortune is aware that these are suffixal morphemes, or "formatives", for he treats them as such on p. 262. How he reconciles these two descriptions of the same phenomenon is a puzzle.

phonetic segments or other sub-phonemic minutiae; and, of course, if the description is to be a synchronic one, it should be concerned with the facts of the extant language and not with historical reconstructions.

* * *

The *Elements of Shona* is a manual of 42 graded lessons each containing a grammatical section, vocabulary, reading texts and exercises, followed by a table of verb forms and tenses, an index, and over eleven pages, in small type, of Shona-English vocabulary. The reading texts have been designed quite delightfully to form a continuous story in which the same characters appear repeatedly in different situations, in town and country, so that the student, while learning the language, also gets a most valuable insight into various aspects of Shona life and customs—daily activities, beliefs, ideas, kinship relations and obligations, etc. Tones are not marked in the book, but Dr Fortune emphasizes their importance in his "Foreword", and exhorts students to mark them as they work through the texts and exercises and to seek out and learn the tonal patterns. He also emphasizes strongly the need to engage a Shona-speaking African to act as "informant"—". . . . learn Shona from him with the help of this book. Learn from him his pronunciation and intonation. . . . Learn about his life and his people, his customs and his country, his idioms, stories, songs and proverbs . . . this book will be able to take you only a short way into such richness"; and on p. ix, "You must resolve *from the beginning* to speak the sounds of Shona, vowels and consonants, correctly". Excellent advice, so rarely given in manuals of this type, and so essential for vitalizing the process of learning the language and making it thoroughly purposeful and effective.

Whereas the Shona material in the *Grammar* is presented, for the most part, in the 1932 Unified Shona Orthography, the manual follows the Standard Spelling adopted in 1955. The former had six special symbols, the latter has none. The tragedy is that in their reaction against the special symbols (for which there was considerable justification), the authors of the Standard Spelling ignored, or neglected to make provision for, a number of important phonemic distinctions, whereas this could easily have been done by the adoption of a few more digraphs. Dr Fortune has given a useful list of the differences between the two orthographies (p. xiv), indicating also where the Standard Spelling is ambiguous.

In the "Introduction", treating "of Sounds and Spelling", Dr Fortune exhibits more of the phonological confusion referred to in discussing his *Grammar*. In addition to "Vowels" and "Semi-vowels", there are sections on "Consonants", including **ny** [ɲ] and **ng** [ŋ or ŋg], **sh** [ʃ], **zh** [ʒ], etc.; "Digraphs", **sv, zv, ty, dy;** "Sound combinations", **ts, dz, pf, bv,** etc.; and "Sounds and sound combinations followed by **w**". Whatever validity the other terms may have in phonetic and phonemic analysis and description, the term "digraph" has none. Dr Fortune's own definition, "Digraphs are letter combinations. . ." proves this; and therefore **ny, ng, ts, dz,** etc., are just as much digraphs as **sv, zv,** etc. At the end of p. xiv he lists the "alphabet" of Standard Shona, and includes **ch, ng, ny, sh, sv, zh, zv.** If "alphabet" means a set of letters, there is no need for any of these to be included; if it means the phoneme inventory, then many more should be listed, for **ts, dz, pf,** etc., have as much right to appear as **ch** [tʃ] or **j**[dʒ].

The grammatical treatment of the material presented in the lessons is essentially the same as that of the *Grammar*, and needs no repetition of comment. The order of treatment of material for purposes of a graded manual is, of course, a subject on which there can be extensive disagreement; and in traditional manuals or teaching courses, widely different sequences of presentation of data have been employed with, apparently, equal success—or lack thereof! However, the application of structural methods to language teaching indicates that there may well be a "best" order, though naturally it will require a good deal of work to find it. We can predict exactly where the speaker of language A will

experience difficulties in learning language B; we can also predict that certain of these difficulties will be quite minor ones, others major ones. These predictions should enable us to progress a long way towards the ideal sequence of presentation for such manuals, and reveal a new avenue for research and experimentation in teaching methods and handbook preparation.

Dr Fortune's *Elements of Shona* is of the traditional type, but has been very carefully planned and graded, though with a tendency to indulge in more analytical detail than is necessary, to describe certain features in phonological rather than in morphological terms, and to incorporate references to historical items, e.g. the original forms of the cl. 9 and 10 noun prefixes (p. 41). However, these are minor points, and this book will prove most useful and informative to anyone desiring a knowledge of the Shona language and culture. If it achieves as much popular success as it deserves we may look forward to seeing even better designed and more successful editions of this book in a few years.

D. T. Cole

Zoeloe-Grammatika. B. I. C. van Eeden. Universiteitsuitgewers en -boekhandelaars, Stellenbosch. 1956. iii+777 pp. 77s. 6d.

Met meer as gewone belangstelling en verwagting het ons kennis gemaak met hierdie werk waarvan reeds die eerste indrukke was dat dit oor baie meer en ook vollediger gegewens beskik as enige Zoeloegrammatika wat tot nog toe die lig gesien het. Ook in die hantering van die stof het hierdie werk soms veel voor op bestaandes, ongeag of dit in verband staan, al dan nie, met die spesifieke benadering wat dit verteenwoordig. Wat die laaste betref word in die breë voortgebou op die standpunt van Doke maar dis opvallend dat van Eeden veel minder kategories is, m.a.w. dat hy in 'n ruimer mate kennis neem van die nou verband wat tussen woordsoorte bestaan. 'n Voorbeeld hiervan is sy uiteensetting in verband met adverbia en substantiewe (par. 1340).

Ten opsigte van grammatikale terminologie het die skrywer nog altyd konsekwent die gebruik van Latinistiese benaminge voorgestaan, selfs wanneer hy, soos in die huidige geval, alternatiewe nie buite rekening laat nie. Teen sy beskouing as sodanig is nie veel in te bring nie behalwe wanneer dit juis die gebruik van sulke benaminge wil beperk. Saaklik beskou is dit te betwyfel of 'n dusdanige rigting op die duur bestand is teen 'n ander wat groter vryheid of rekbaarheid toelaat. Daar bestaan bv. nie genoegsame rede waarom ons die benaming *byvoeglike naamwoord*, wat die verhouding van hierdie woordsoort tot die selfstandige naamwoord so goed tipeer, nie ook en naas *selfstandige naamwoord* moet toelaat nie. Per slot van rekening beteken konsekwentheid nog altyd net relatiewe konsekwentheid, so word in die voorliggende werk wel gepraat van *verbum/verba* en *adverbium/adverbia* maar nie ook van *adjektivum/adjektiva* nie.

Binne die bestek van sowat sestig bladsye word op saaklike en oordeelkundige wyse sodanige gegewens as wat basies beskou kan word vir 'n kennis van fonetiek, fonologie en ortografie verstrek; waar nodig word met verwysing na Zoeloe ook die nodige toepassings gemaak. 'n Paar keer word die begrippe *taal* en *spraak* met mekaar verwar; vgl. par. 1: „*Fonetiek* of *Klankleer* is die wetenskap of studie van spraakklanke of fone en ander elemente wat taal (lees: *spraak*) help uitmaak"; verder: „Naas klanke, foneme en sillabes, bestaan daar natuurlik ook nog ander spraak- of klankeenhede . . . . So is daar . . . veral die *woord* of *woordgroep*" (par. 55). Hierteenoor het geleerdes soos Gardiner en Reichling reeds afdoende bewys dat die woord 'n eenheid van *taal* en nie van *spraak* is nie. Blykbaar met instemming word 'n opvatting oor die taak van die fonologie aangehaal wat nie met die heersende akkord gaan nie en hoogstens vir 'n onderafdeling van hierdie dissipline, naamlik die diachroniese fonologie, geldigheid het (vgl. par. 5). 'n Soortgelyke wanopvatting kom

voor by 'n bespreking van die foneem wat daarvolgens diachronies bepaal word (par. 47).

Wat die indeling van die woordsoorte betref sluit van Eeden hom merendeels by heersende opvattings daaromtrent aan. Verder toeligting is hier nodig wanneer beweer word dat „alle Zoeloewoorde . . . geklassifiseer (kan) word in *twaalf* verskillende soorte of woordsoorte" (par. 190), maar dat „'n woord met *na* as sy aanvangselement nie beskou kan word as behorende tot 'n bepaalde woordsoort nie" (par. 316). Dieselfde geld ten aansien van die beskouing dat woorde van die *pha-* klas adverbia is (par. 477) en waaruit afgelei moet word dat 'n adverbium ook 'n possessiefskakel kan hê. Dit is veral ten opsigte van die kwalifikatiewe, waaruit nou ook nog die sg. enumeratiewe verwyder word, dat die nadele van navolging van die heersende woord-indeling sonder meer die beste gesien kan word. Deur inkorting van, eerder as deur uitbreiding van die omvang van hierdie woordsoorte word nou omstandighede geskep wat nie bereken is om hille meriete, hulle optrede, of ook hulle verhoudingsmoontlikhede tot die gekwalifiseerde woord tot volle ontplooiing te laat kom nie. Met die veronderstelling dat dit korrek is om te beweer dat kwalifikatiewe deur omstelling verander tot kwalifikatiewe pronomina moet daar tog 'n maatstaf geïmpliseer wees waarvolgens bv. bepaal kan word waarom hierdie voorreg juis aan bepaaldes toekom en nie aan ander nie. 'n Aanduiding van so'n globale maatstaf is nie uit die voorliggende werk op te maak nie. So gebeur dit dan dat wel na die kwalifiserende funksie van demonstratiewe verwys word (par. 346); tog word hulle nie by kwalifikatiewe ingedeel nie. Dit sou owerigens die moeite loon om vas te stel waar en wanneer woorde wat nie as kwalifikatiewe aangemerk staan nie ook in daardie hoedanigheid gebruik kan word (vgl. o.a. die absolute pronomen in par. 125).

Hierdie bespreking sou sy doel mis wanneer daarvolgens afgelei word dat hierdie werk sonder toereikende insig of voorbereiding aangepak is. Selfs wanneer die bedenkinge wat hier uitgespreek is in rekening gebring is teen die wesentlike en sobere verdienstes waarvan die boek deurgaans getuig, kom die skrywer met eer daarvan af. Dit geld veral ten opsigte van die groot hoeveelheid taalmateriaal wat verwerk is; ook geld dit vir gedeeltes wat met meer as gewone deeglikheid behandel is. Hieronder moet genoem word gedeeltes met betrekking tot die adjektief en relatief, interrogatiewe woorde, kort en lang vorms van die teenwoordige tyd en van die perfektum, die relatiefsuffiks *-yo*, kwantitatiewe; by wyse van hoofstukke ook adverbia, konjunktiewe, defisiente werkwoorde, en so meer. Ten opsigte van die „kopulatief-substantief" vertoon die behandeling wat betref perspektief nog gebreke wat hopelik in 'n tweede uitgawe verbeter sal word. Sulke gebreke spruit ten dele daaruit dat toon nie voldoende in ag geneem is nie.

As 'n besondere verdienste noem ons uiteindelik ook nog die gebruik om elke grammatikale verskynsel van belang met keurige voorbeelde of sinne te illustreer. Voeg hieraan toe die maklik verstaanbare taal waardeur van Eeden sy gedagtes kenbaar maak, en dit word begryplik waarom die grammatika deur sowel gevorderde as minder gevorderde studente met welslae as naslaanwerk gebruik sal word.

J.A.E.

Les Langues Négro-Africaines, et les Peuples qui les parlent. L. HOMBURGER. "Bibliothèque Scientifique", Payot, Paris. 1957. 343 pp., map. 1.200 fr.

This is a new edition of the 1940 publication, augmented with a chapter on "Sindo-Africain". Mlle. Homburger's original thesis maintained an Egyptian origin for the languages of the Black people of Africa. Obviously some languages show greater Egyptian influence than others, for instance the Peul (Ful), with its parallels in Coptic. Since that publication, the author has somewhat revised her thesis, and now links Dravidian with Egyptian, stating that "the Dravidian lang-

uages and Ancient Egyptian stem from a common stock in a language spoken in the Indus Valley towards the end of the 4th millenium B.C." The main part of the first edition, however, remains more or less as it was.

The first chapter is a descriptive and geographical survey of African tribes and their languages, particularly in the region south of the Sahara. These are treated territory by territory, or area by area, and while great numbers of language names are given, and certain groupings suggested, there is little indication of the reasons for these groupings, or the main distinguishing features of the groups. The author does discuss the position of Peul, placed by some as Hamitic, but by Delafosse as "Négro-Africain" (p. 56). Reasonable attention is given to the classification of Nilotic languages into Central and Southern Groupings (p. 21). The classification of the Bantu languages, however, on page 57, is very unsatisfactory; some important names are missing, such as Nyanja, Bemba, Kikuyu, Kamba, Shona, Venda; while insignificant names, such as "Mochi", Lala, Bisa, Tlapi (a dialect of Tswana, which is not itself mentioned), Kwambi, etc., are included; and Sena, Tete and Subiya are classed together, simply because they are spoken somewhere along the Zambesi. This classification is entirely out of date. There are some errors in this chapter that might be noted: (p. 53) The Vei alphabet was not invented in the XVIII century, but by Doalu Bukere about 1834. (p. 59) XVI century should read XVII for Brusciotto. (p. 62) The derivation of the past tense of Pidgin-English, **mi don chop** (I have eaten) as from "I don't chop" is, of course, quite wrong; it is from "Me done chop". This chapter could well have been brought more up to date.

The second chapter is devoted to the phonetics of what the author terms Négro-Africain, a term intended to link Bantu, Sudanic, Nilotic and other African languages under one head. An amount of useful material is gathered here, and extensive comparisons are made between a large number of languages. It is a great pity that (on p. 72) the term "Cafre" and "Cafre-zoulou", long abandoned out of respect for the people, should be perpetuated here; and "Cafre" (p. 121) does not apply to Natal; it was at one time used for Xhosa of the Eastern Cape Province. The author has not understood the formation of clicks and implosive sounds; they are not "inspired", as she records on pages 71 and 72. Very useful information is given on alternation of consonants, and especially of contraction of consonants. However, a certain weakness in phonetic equipment is evident. On page 96, no recognition is given of the implosive and fricative forms of **b** in Bantu; while on page 106 is the statement: "Une prononciation particulière aux idiomes du Sud-Est est indiquée par *hl, tlh, dl* . . ." without attempting to label or describe these lateral fricatives and affricative sounds.

It is noticeable that the author frequently uses the term "Bantou" as though it refers to a language, and not to a family comprising a great number of distinctive forms. When examples are given, the particular language should be referred to (as is sometimes done), else phenomena which occur, some in one language, some in another, are credited to the whole family, causing a distortion of the picture. The same remarks apply to certain quotations from Nilotic languages.

From pages 126 to 270 grammatical matters are dealt with: Pronouns, "Particles", Verbs, Substantives, Qualificatives. A large amount of material is presented in these pages. The very amount of material and the multiplicity of languages used make an appraisement very difficult. The study of the demonstratives (pp. 132 et seq.) is valuable. Its value would have been increased if it had been set out in extended detail to compare single forms, with sex distinct forms (Nilotic) and class forms (Bantu), and its relation to the article where that occurs. Mlle. Homburger has rendered a real service here in demonstrating an understructural affinity between Bantu and the other families.

To have a whole section headed "Pronoms Indéfinis" is to import European classification into the study. One would have liked to

see a more "African" approach to grammatical phenomena. In the chapter on "Particles" (pp. 156 et seq.) the important question of word-division is entirely overlooked. Are words or are affixes being dealt with here? It is a pity that the study is from the standpoint of European languages. For instance, the Bantu prefixes *pa-*, *ku-* and *mu-* are called "prepositions", and the *-ela* verb suffix "prepositional". One notices repeatedly that "post-positions" and "pre-positions" are confused with the part of speech called the preposition. It would be better to use the terms "prefix" and "suffix" (or "proclitic" and "enclitic" if necessary), unless one is dealing with self-standing words.

The valuable result of this whole grammatical section lies in focussing the attention of possible inter-relationship between the various African language families. There is a connexion, appearing sometimes in root-forms, sometimes in morphological correspondences, to a certain extent in phonetic behaviours. But the most important study for comparison, the syntactical study, is still wanting. Without this a proper appraisement of the relationships cannot be made.

Chapter XI gives a sketch of the History of African Linguistics. This is followed by brief notes on Bushman (from the work of L. F. Maingard) and Hottentot (from A. Seidel's grammar).

Then follows Mlle. Homburger's fresh thesis concerning "Sindo-Africain". There is a Dravidian Group (comprising Canara, Telugu, Tamil and Malayalam, amongst others) now in Southern India, whose place of origin was Sindh, the Valley of the Indus. From this area, it is stated, came to Egypt the first dynastic Egyptians. The early Egyptians came into contact with the Hottentots, who migrated southwards. On page 328, a settlement of Dravidian Canaras is indicated as having taken place some 2000 years ago between the East Coast of Africa and Lake Victoria, giving rise to the Bantu. This conclusion is supported by certain grammatical resemblances between Canara and Bantu. In her summing up the author pins her faith on the similarity of vowels of the demonstratives, and on certain verbal suffixes. To say that Canara *obbaru* (les uns) explains Bantu *ba* or *aba* is far from convincing. The evidence presented is insufficient to prove more than some possible Dravidian "influence". The classifications she would make are:

(i) A "Négro-Africain" group.

(ii) A larger "Sindo-Africain" group comprising Ancient Egyptian, Cushitic, "Négro-Africain" and Dravidian.

The reviewer feels that the evidence to support the first is suggestive, but inadequate in the matter of syntax; and that the second is based on far too slender indications, which may show but influences and not lines of development. Nevertheless such studies are worth pursuing; but categorical pronouncements should be deferred until much more weighty evidence is forthcoming.

C.M.D.

Politics in an Urban African Community. A. L. Epstein. Manchester University Press. 1958. xix+254 pp., 2 maps, 3 illustrations. 28s.

This book is an important contribution to the study of African urbanization. It is important for the significant factual additions it makes to knowledge, for its analytical framework and the hypotheses put forward. Work of this standard is a tribute not only to its author, Dr A. L. Epstein, but to the fast developing "Manchester school" of social anthropology under Professor Max Gluckman —one of the several South Africans who hold chairs of social anthropology at major universities in the United Kingdom—and to the Rhodes-Livingstone Institute, to both of which Dr Epstein makes acknowledgment, and both of which have stimulated extremely valuable research largely, though by no means exclusively, in that until recently neglected field of study, African urbanism.

The present book, *Politics in an Urban African Community*, is set in Luanshya, one of the Northern Rhodesian Copperbelt towns. It deals with the administrative structure,

the development of African trade unions and political organizations, and the relationship between tribalism and the urban social system. Because Luanshya only came into being in 1926, when development work on the mines began, Dr Epstein is able to cover in his analysis virtually the whole lifespan of a town from its inception until 1953, when his field work ended. In this short period of little more than a quarter century, a series of remarkable changes are telescoped, including the formation and development of the African Mineworkers Unions, of the African National Congres , and the birth of the new Federation, together with the impact and repercussions of these events.

A basic feature of Luanshya—as of other Copperbelt towns—is the dichotomy between Mine Township and Government Township, the former a self-contained administrative unit providing for all the wants of its African employees together with those of their wives and children. This duality reflects itself in administrative structure and in the largely separate, though sometimes converging and frequently parallel, development of African political organizations.

Dr Epstein's treatment of the changes that have taken place in the internal organization of Africans in the Mining Township and in the two African locations in the Government Township is of particular interest. To commence with, when the African mineworkers were practically all migrants and still "largely tribal", liaison with the mining company took place by means of the company police. Shortly after, the system of Tribal Elders was instituted—the election of elders by the main tribal groups on the mines—whereunder the Tribal Elders performed a variety of functions, ranging from the settling of disputes between workers and looking after newcomers to acting as the authorized channel for voicing mineworkers' grievances. In the locations, likewise, Tribal Elders were introduced, though here, obviously, they exercised more limited functions because conditions of employment, being dependent on a large number of individual employers, fell outside their sphere of intervention. Dr Epstein then analyses the forces and events which led to the formation and growth of the African Mineworkers Union and progressively weakened the position of the Tribal Elders (later replaced by Tribal Representatives) in the Mining Township and finally led, in 1953, to their abolition by an 82% vote of the total African mine strength. In the locations, while the system of Tribal Elders was not totally eclipsed, their position declined in importance till, in 1954, not one of the 16 members of the Urban Advisory Council was a Tribal Elder from the locations (and only one had been a Mine Tribal Representative), whereas in 1944, of 11 members, five were Tribal Elders and five were Tribal Representatives. In both mine township and urban locations, the pattern of leadership changed. "Over the years representatives whose appointment was on a tribal basis have gradually been supplanted by men whose prestige and authority among the new urban dwellers owed little to high status enjoyed within a tribal policy, but derived from their education and conscious approximation to European standards" (p. 233).

The analysis of urban administration shows the conflict between the European administration, which sought to transplant tribal forms of government into the new urban environment, and the new urbanized groups of Africans who were endeavouring to establish economic and political organizations to promote their interests, now very different from those arising in a tribal system, and to secure access to the focal power structures. The position of the African National Congress, its relations and conflicts with the African Mineworkers Union and the use to which special interest groups in the locations attempt to put it, is fully and fascinatingly documented. In sum, this is an analysis of a changing social system in which "the process of growth is expressed in constant fission and the emergence of new bodies and associations" (p. 198).

Finally, mention must be made of Dr Epstein's admirable treatment of the extent to which "tribalism" continues to be of importance in ordering social relations in the towns. He discards "tribalism" as a unitary concept carrying the implicit assumption

that "because the evidence points to the persistence in the towns of strong tribal loyalties, those loyalties will operate with the same strength over the total field of social relations in which the urban African is involved". He approaches the towns "as a field of social relations which is made up of sets of social relations of different kinds, each of which covers a distinct sphere of social inter-action, and forms a sub-system" (p. 232). He refers to the principle of "situational selection" whereby in certain situations, particularly those related to the total field of Black–White relations, tribalism is irrelevant: but in others, his evidence suggests, urban Africans still order their behaviour in many aspects of their social life according to tribal norms and values.

The urban African community, says Dr Epstein, is not "a formidable mass of confusion, a social chaos. On the contrary . . . it has its own form of social organization, and this organization provides a general framework for the understanding of a good deal of the behaviour of its inhabitants. The analysis of this organization is the major task now confronting sociologists working in urban African communities" (p. 226). We, in South Africa, are acutely aware of this need. And in the research that is being and, one hopes, will increasingly be undertaken, this analysis of Dr Epstein's will provide many valuable points of reference and rich stimulus.

E.H.

Die Bantoe van Suid-Afrika. J. P. Bruwer. Afrikaanse Pers-Boekhandel, Johannesburg. 1957. vi+240 pp., 3 maps, 20 plates, VI tables, bibliography, glossary. 30s.

As Professor Bruwer points out, European and Bantu have been neighbours for over three hundred years. Now, for the first time (to the reviewer's knowledge) is presented a general introduction to the culture of the Bantu of South Africa which is directed to and is intelligible to the layman, yet is not of the order of the Traveller's Tale (nor of its modern counterpart: rank, uninformed journalism). As the unsophisticated habitually regard all Bantu tribes as one—to the extent of enquiring if students of Bantu languages are "learning Native?" — Dr Bruwer has wisely emphasized the basic similarity of the various tribal cultures and mentioned differences only where they are particularly significant. The Bantuist, anthropologist or linguistician, may take offence but he is too often enmeshed in undergrowth to appreciate that, in perspective, we have a forest and not only clumps of dissociated trees. The chapters (e.g. social organization, child-life, initiation, religion, magic, etc.), although high-lighting the various features in turn, combine to present the culture as a living, integrated whole.

Dr Bruwer has described, almost exclusively, the "traditional" or not-yet-Europeanized culture, an approach open to criticism and often confusing because of his frequent use of the present tense, but more satisfactory as a point of reference to the uninitiated than the sliding sands of contemporary change without discernible direction. He has not given us dodos and quaggas but cultural history recent enough to give the thoughtful reader a key to an understanding of many of the problems facing Europeans and Africans in symbiosis. This book will suit very well for school-children taking ethnology at matriculation level and should be included in the reading-lists of first-year Bantu language and social anthropology students.

Unfortunately the book is not free of questionable statements, generalizations and mistakes; for instance the term is either *Ngwato* or *Bamangwato*, but not *Mangwato*. The map facing the last page of the preface shows the Kenya region inhabited only by Semites, and most of South-West Africa uninhabited, and ignores the Khoisan who are culturally significant enough to warrant inclusion, as are the European inhabitants of the continent. The maps facing pages 10 and 28, if read in conjunction, suggest that very few Bantu live outside the reserves; admittedly the impression is refuted in the text, but is unnecessarily misleading. On

page 28 the sub-group Western Sotho (horrible term!) includes the "Tswana tribe" —clearly this should be "Tawana". Tables V and VI on page 39 are at variance over the Tsonga; even if table VI were to put the 1% in Natal instead of in the Free State, there would be a difference of 2,673 between the 1% of Natal Bantu who are Tsonga and the 6% of Tsonga living in Natal. Linguistic errors also occur, e.g. the glossary at the back has Sotho and Tswana (and other languages) thoroughly confused, *umloyi* should be *moloi*, plural forms are translated as singulars, etc., etc.

In the light of anthropological and linguistic progress it is regrettable that Dr Bruwer should have perpetuated the hoary theory of the Bantu having sprung from an East African lacustrine, miscegenous union of Hamite and Negro and then, rather like van der Decken, having wandered evermore through Africa. Misted by antiquity, the origin is not in any case an urgent problem, but the discoveries of Africanists in different branches of anthropology have led to the formulation of a far more acceptable alternative. Greenberg[1] has adduced convincing evidence of the development of Bantu languages as a genetic sub-family of West-Sudânic in the Nigeria-Cameroons region. From this source they spread south eastward, coming into contact and mixing with proto-Mediterranean and Boskopoid types and acquiring some of their physical characteristics. It is problematic how much, if any, cultural borrowing took place—the archeological evidence is far from complete—but it is quite possible that the main features of Bantu culture had already begun autonomous development in the same fashion as the language. That some of the Union's Bantu tribes might have passed through the East African lake region is possible, but whether their legends can be relied upon as evidence of this is questionable. Think of the Barolong statement (*vide* Dr Bruwer at page 171) that they previously lived in a watery place where the sun had the same degree of southerly declination as it now has northerly declination in their present home; this could only be on the Nile in the region of Aswan!

Lastly, a book of this nature shows how inadequate is the term "Sotho". If only someone could coin an equivalent of "Nguni" and do away with the frequent confusion as to whether (*a*) the northern or (*b*) the southern Basotho (or Sesotho) or, (*c*) the Sotho group of tribes (or languages), is being referred to.

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A Social Survey of the African Population of Livingstone. MERRAN MCCULLOCH. Rhodes-Livingstone Papers No. 26. Manchester University Press. 1956. x+82 pp., appendices and map. 10s. 6d.

The Kalela Dance: Aspects of Social Relationships among Urban Africans in Northern Rhodesia. J. CLYDE MITCHELL. Rhodes-Livingstone Papers No. 27. Manchester University Press. 1956. viii+52 pp., appendices. 7s. 6d.

One of the main problems in urban anthropology today is how to reconcile social survey and anthropological techniques in the constant search for quantification. Here, in two successive Rhodes-Livingstone papers, relatively pure examples of each technique are presented, which, while they do not necessarily point clues to this problem, at least show some of the limitations which prevent an easy solution.

Miss McCulloch's survey is one of a series carried out under the direction of Dr (now Professor) Clyde Mitchell, with the view to (*a*) providing demographic data on the African populations of towns in Northern Rhodesia, and (*b*) indicating the extent to which Africans are becoming permanent urban dwellers. In the case of Livingstone, data from a manufacturing town can now be compared with that previously obtained from mining towns on the Copperbelt.

Or can it? The survey interviewing took

[1] Joseph H. Greenberg: *Studies in African Linguistic Classification*, Compass Publishing Co., New Haven, 1955, pp. 33-40.

over five months, from September 1952 to February 1953, using only two fieldworkers. This, McCulloch tells us quite honestly, is the planting season in the villages, so that the African population in Livingstone at the time was smaller than it would have been at the opposite end of the year. There must also surely have been substantial fluctuations in the population during the interviewing process, which make it even more difficult to make direct comparisons with other surveys done in other towns at different times of the year. If it were not possible to conduct these surveys at the same known optimum population periods in successive years, then the value of a pilot survey to determine whether population fluctuations in different centres coincided, would have been paramount. From the resulting curve, some allowance might have been made to produce better comparability in the successive surveys.

The other related point is this: to have done the survey rapidly, using more fieldworkers, might not only have eliminated one of the sources of sampling error, but have left more time, in a given working period, for anthropological investigation of the semi-structured type to explain the differences suggested by the tables. Experience in South Africa does not suggest that the employment of the many over a short period need be more expensive than that of the highly qualified few over a prolonged span of fieldwork. Supplementary non-scheduled interviewing in this case could have done much to dispel that empty feeling, so closely associated with surveys, of reading text which is largely a spelling-out of the tables.

All this asks much of a survey designed to provide basic demographic data. The material provided, within its sample limitations, is demographically sound, well set out (though the method of printing significant figures in bold type, used in Tables 22 and 27, could with advantage have been used throughout), carefully written, and obviously thoroughly revised.

Clyde Mitchell's *Kalela Dance*, "the dance of pride", is on another plane of investigation. It is really a study of tribe and class on the Copperbelt, starting from one behaviour-form, the most popular tribal dance in the area. Following Gluckman in his *Analysis of a Social Situation in Modern Zululand*, Mitchell had intended to work outwards from a specific situation to the general social system, and to return, enlightened, to the point of departure. There is a difference, however, between drawing on relevant aspects of the social structure and drawing on relevant areas of sociology. The analysis of the *Kalela* dance is not fundamentally complex, broken down as Mitchell has it, into three themes: the smartness of the dancers, the method of recruitment, and the songs. These themes, however, are obliterated repeatedly by the sociological analyses of other areas which they suggest. Smartness develops naturally into a study of occupational ranking and prestige, a legitimate related aspect of the social structure. Recruitment expands properly into the consideration of tribe and the prestige-ranking system, but surely not into a method of measuring tribal distance by adapting Bogardus' Social Distance Scale; even less into the discussion of tribalism and urban administration which follows. These different areas of sociology take over as the paper proceeds, using facets of the dance as illustrations as much as contributing to an understanding of it. In the end, when the *dénouement* comes, and we find that the dancers, as representatives of the Bisa tribe, set up a sort of unilateral joking relationship with their spectators, it all seems a little flat after the great matters that have gone before.

Yet on reflection one would not have it otherwise. This is an important paper. Mitchell has used the *Kalela* dance as a peg upon which to hang a number of stimulating hypotheses generated by his years of urban work. His writing on tribalism as an urban category of belongingness shows a clear understanding, and is a corrective to the inaccurate saw that tribalism in towns is dying out. No more than the social survey could this method stand alone in urban investigations, but in skilled hands it evidently has a rich contribution to make.

D. H. READER

The Travels of Leo Rozmital, translated from the German and Latin and edited by MALCOLM LETTS. Hakluyt Society Publications, No. CVIII, Cambridge University Press. 1957. xv+167 pp., map, appendices. 35s.

Burns, the Scottish poet wrote:

"O wad some Pow'r the giftie gie us
To see oursels as ithers see us!"

This book, which is a record of travel through Western Europe, including England, by a party of Bohemians in 1465–67 gives many a sly sidelight on men and manners and customs. Thus one thinks it is a pagan custom to drink wine out of a human calvaria but (p. 23) writing of the town of Neuss one finds: "We saw [holy St. Quirinas's] skull out of which they gave us wine to drink." Nunneries too were a good deal less sedate then than now, for of the nuns one learns, "they may leave the nunnery to get married. The mother superior invited my lord as her guest and gave a fine dance in the nunnery. The nuns were very finely dressed and knew all the best dances. Each one had her own page who waited on and preceded her. They all lived as they wished."

For those of us who, in Africa and in the east have experienced the tactics of gifts, the following remark comes with some amusement. At Bruges, Rozmital, the Bohemian leader, "presented the lord Charles with a very fine horse, hoping for a better one in return" (p. 30). One learns that at this date it was in Belgium "the custom of kings and princes to have concubines living in their castles" (p. 40), and, referring to the Duke of Burgundy, one learns that he had only one legitimate son but three bastard ones (p. 42).

At a banquet in London, given to this Bohemian royal party, one learns that when the Queen dined "the ladies and maidens and all who served the Queen at table were all of noble birth and had to kneel so long as the Queen was eating . . . Everyone was silent and not a word was spoken." (p. 47). Such a description would fit an African monarch's banquet of a hundred years ago.

It is also strange to read (p. 53) that in England at this time there were "no carriages or chariots, only horses which they ride and use for the carriage of necessaries, though they also use two-wheeled carts for transporting goods."

It comes as an antidote to our self-esteem to learn that in the opinion of these Bohemians the English were "treacherous and cunning, plotting against the lives of foreigners and no matter how they bend the knee they are not to be trusted." The editor remarks that this summary of the English "is a little unkind, since the Bohemians were feasted by the men and kissed by the ladies." (p. 7).

In Spain, owing to lack of timber, one reads that the local inhabitants, as do those of the Karoo, "collect cattle dung for firing and use it to cook their food" (p. 97). This book of travel contains many more sidelights on life and men and manners in Europe in the fifteenth century and shows how unsafe life and travel were then.

M. D. W. JEFFREYS

The Tribes of Northern Rhodesia. W. V. BRELSFORD. Government Printer, Lusaka, Northern Rhodesia. 1956. 128 pp., 3 maps, 22 photographs. 12s. 6d.

Mr Brelsford has set out to give an outline account of the tribes of Northern Rhodesia which will enable the enquirer to find out where they live and something of the salient points of interest about them. It should prove useful to newcomers anxious to learn something about the Africans among whom they live, whilst those who already have some knowledge will find fresh facts here. The type of information presented varies from tribe to tribe; that on the Ngoni is largely historical, and indeed much of the data presented is concerned with the history of tribes. But the author has also drawn upon recent anthropological research for other types of information as in the accounts of the Tonga and Mambwe. Professor J. C. Mitchell has contributed an excellent chapter on Africans in the towns, which throws light on the operation of

tribalism in an urban context, and should serve as a corrective to vague talk about detribalization.

The amount of information about different tribes is by no means uniform, so the book enables one to get a quick view of what tribes are poorly documented or virtually unstudied, e.g. the minor tribes of Barotseland at pp. 16-17.

The photographs in general are well reproduced, the tribal map using different colours for tribal groups fills a long existing gap, and the Government Printer deserves to be commended for his printing and production. The price is very moderate by present-day standards.

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